# NCEH/ATSDR News Clips for Thursday, August 13, 2015

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### **Summary**

1. New Mexico, Colorado Delegations Urge President To Direct Federal Resources To Gold King Mine Spill ATSDR Named

KRWG News -- 8/12/2015 Las Cruces, NM

First and foremost, we need your help to mobilize adequate and coordinated resources across the federal, state, tribal, and local agencies involved in the emergency response and disaster management. The Environmental Protection Agency (EPA) is the primary federal agency involved, but given the complexity and size of this disaster, we expect other federal agencies including the Agency for Toxic Substances and Disease Registry (ATSDR), Department of Agriculture, Department of the Interior, and Department of Health and Human Services may be involved.

2. EPA test results show mine spill unleashed highly toxic stew Chicago Tribune -- 8/13/2015 Chicago, IL

The U.S. Environmental Protection Agency announced Thursday that surface-water testing revealed very high levels of lead, arsenic, cadmium and other heavy metals as a sickly-yellow plume of mine waste flowed through Colorado.

3. After Colorado Waste Spill, E.P.A. Halts Field Investigations
New York Times -- 8/12/2015 New York, NY

the agency's top official said Wednesday that she had halted all similar investigations until

further notice. ... "It is just an opportunity for us to screen, to make sure that there is no potential for a release like this in another situation," said Gina McCarthy

### 4. EPA chief says polluted Animas River 'seems to be restoring itself' Los Angeles Times -- 8/12/2015 Los Angeles, CA

"I visited the river and took a look at it myself, and the good news is that it seems to be restoring itself," she said. "We're hoping for a return to some sense of normalcy for the use of this river, but the EPA is letting science be its guide."

## 5. By the numbers: The massive toll of the Animas River spill CNN -- 8/13/2015 Atlanta, GA

3 million ...The number of gallons of heavy metal filled wastewater the U.S. Geological Survey says spilled into the Animas River. That's about 60,000 bathtubs full.

## **6.** How Dick Cheney Kicked off an Era of Cancer Clusters and Eco-Disasters from Fracking

AlterNet -- 8/13/2015 San Francisco, CA

The Energy Policy Act of 2005, which holds the Halliburton Loophole, exempts oil and gas firms from environmental protection laws.

### 7. Officials urge study of compressors, pipelines Daily Star, The -- 8/13/2015 Oneonta, NY

...local officials have joined a prominent physicians' group in urging state leaders to conduct the same type of study that led the Cuomo administration to ban hydraulic fracturing.

### 8. Ancient Chinese graffiti warns of droughts ahead

Climate News Network -- 8/13/2015 Internet

Cave inscriptions stretching back five centuries record the impact of disastrous droughts in central China – and help scientists predict that another is due before 2040.

### 9. Judge denies DuPont testimony, expert motions

West Virginia Record, The -- 8/12/2015 Charleston, WV

A federal judge, for the most part, denied motions by DuPont asking the court to exclude certain testimony and experts in an ongoing mass tort against the chemical company by Mid-Ohio

Valley residents who were exposed to C8 in their drinking water.

## 10. <u>Italy's ban on neonicotinoids effective</u>, <u>U of Guelph conference told</u> Guelph Mercury -- 8/13/2015 Ontario, Canada

"After the ban there has been strong improvement," Mutinelli said. "The effect of the ban was immediate." He said corn producers were worried about losing crop yield to disease, "but that didn't happen," he said. "The ban has been now seven years and crop yield is within the expected range."

### 11. The Teflon Toxin DuPont and the Chemistry of Deception

Intercept, The -- 8/11/2015 New York, NY

In some ways, C8 already is the tobacco of the chemical industry — a substance whose health effects were the subject of a decades-long corporate cover-up. ...This story is based on many...documents, which until they were entered into evidence for these trials had been hidden away in DuPont's files.

### 12. 'They figured our neighborhood is black, so they'll do it' Center For Public Integrity -- 8/12/2015 Washington DC

Residents of Southside Syracuse put up a fierce, well-organized fight to stop construction of a sewage plant and still lost

### 13. What the Gold Mine Disaster Tells Us Editorial

New York Times -- 8/13/2015 New York, NY

The General Mining Law...is a destructive relic now. ...allows mining companies to buy federal land for a few dollars an acre, demands no royalties and requires minimal environmental protections while the mine is operating and no cleanup afterward.

### 14. EPA SCIENTIFIC INTEGRITY POLICY STUCK IN UTERO

Public Employees for Environmental Responsibility -- 8/12/2015 Washington, DC

Despite pledging a "culture of scientific integrity," the U.S. Environmental Protection Agency's official Scientific Integrity Policy remains largely unfinished more than three years after its launch.

### 15. <u>Vogtle: at \$65 billion and counting, it's a case study of nuclear power's staggeringly</u> awful economics

GreenWorld -- 8/2/2015 Takoma Park, MD

Georgia is one state that you would think would be wary of nuclear power economics. The first two reactors at Georgia Power's Vogtle site, which came online in the late 1980s, were a record 800% over budget.

### 16. Rising seawater temperatures force Pilgrim to reduce power

Cape Cod Times -- 8/11/2015 Hyannis, MA

It was only the second summer in the nuclear plant's 43-year history that the temperature of the water used to cool the reactor exceeded the federal limit.

### 17. What The Sugar Industry Doesn't Want You to Know

Food Manufacturing -- 8/12/2015 Madison, WI

How much sugar should you eat? The FDA wants to tell you, but the sugar industry has spent \$168 million fighting measures like this since 2009.

## 18. <u>Did The EPA Intentionally Poison Animas River To Secure SuperFund Money?</u> Zero Hedge -- 8/12/2015 New York, NY Internet

A week before The EPA disastrously leaked millions of gallons of toxic waste into The Animas River in Colorado, this letter to the editor was published in The Silverton Standard & The Miner local newspaper, authored by a retired geologist detailing verbatim, how EPA would foul the Animas River on purpose in order to secure superfund money...

### 19. Saturated fats in meat and dairy not as bad for health as previously thought, study finds

Independent, The -- 8/12/2015 London, UK

A major study into the health implications of dietary fats has failed to find a link between food containing saturated fats, such as eggs, chocolate and cream, and an increased risk of dying from heart disease, stroke or type-2 diabetes.

### 20. Illinois parents refusing vaccines for kids need doctor's signature

FOX News Network -- 8/13/2015 New York, NY

A bill signed into law this month requires parents of children entering kindergarten and grades six and nine to provide a Certificates of Religious Exemption with a health care provider's signature if they opt out of vaccine requirements.

# 1. New Mexico, Colorado Delegations Urge President To Direct Federal Resources To Gold King Mine Spill ATSDR Named

KRWG News -- 8/12/2015 Las Cruces, NM

New Mexico, Colorado Delegations Urge President To Direct Federal Resources To Gold King Mine Spill ATSDR Named

KRWG News By office of Senator Tom Udall (D-NM) Aug 12

WASHINGTON – Members of the New Mexico and Colorado congressional delegations today are urging President Barack Obama to direct any and all appropriate federal resources to help respond to damage from the Gold King Mine spill that occurred in the Animas River last week. Communities in both states along the affected rivers are working quickly to minimize the short-term and long-term public health and economic challenges caused by the tragic spill. Recovering from the spill will take a full and coordinated approach from the Environmental Protection Agency and other federal agencies working with state, tribal and local officials.

New Mexico Senators Tom Udall and Martin Heinrich and Representative Ben Ray Luján and Colorado Senators Michael Bennet and Cory Gardner and Representative Scott Tipton signed the letter.

The lawmakers highlighted the need to include multiple federal agencies in a coordinated response; improve the speed of water quality and sediment testing and the communication about that testing; address the availability of potable water; create a claims reimbursement process to cover all costs incurred by states, counties, tribes, and local municipalities, as well as local businesses and agricultural producers; review any ongoing projects in the area that are similar in nature to those at the Gold King Mine; and take a look at the creation of a water treatment plant in the Upper Animas River to remove heavy metals from the watershed at its source.

Full Text of the Letter:

August 12, 2015

Dear Mr. President:

We write to urge you to focus all appropriate federal resources on the tragic Gold King Mine spill that occurred last week in Southwest Colorado. The release of approximately three million gallons of contaminated water into the Animas River has polluted the river through southwest Colorado, the Southern Ute Indian Reservation, New Mexico, and the Navajo Nation. This is truly a national disaster that requires the attention, coordinated efforts, and resources of multiple federal agencies.

The Animas River and San Juan River are critical to our states' economies and way of life. Communities in all of the affected states, the Navajo Nation, and the Southern Ute Indian Tribe are justifiably concerned about both the short and long term effects of this disaster. In the short term there are many steps that can be taken to make our communities whole, move us toward restoration of river health, and effectively manage this disaster. The communities we represent expect and deserve a prompt and thorough response to this disaster as well as transparency and accountability from the federal government.

First and foremost, we need your help to mobilize adequate and coordinated resources across the federal, state, tribal, and local agencies involved in the emergency response and disaster management. The Environmental Protection Agency (EPA) is the primary federal agency involved, but given the complexity and size of this disaster, we expect other federal agencies including the Agency for Toxic Substances and Disease Registry (ATSDR), Department of Agriculture, Department of the Interior, and Department of Health and Human Services may be involved.

Also in the short-term, a coordinated federal response must be developed to address the lack of available potable water in many of the affected communities. In addition to municipal water supplies, irrigation ditches and water supplies for livestock were contaminated. The federal government needs to work with state, tribal, and local governments to provide and pay for supplemental water as needed for both drinking water supplies and agricultural operations.

There also must be an improvement in the speed of water quality and sediment testing and in the dissemination of fully-interpreted results to the public. The EPA is conducting water and sediment sampling and analyses, but the interpreted results have not been made readily available to the public. The interpretation should include comparison charts showing historic contamination levels as well as relevant water quality standards. This process should be coordinated with ATSDR to include human and animal toxicology data.

In the long-term, while we understand that the EPA is starting to move forward with a claims reimbursement process, we need to ensure that this process is comprehensive and includes sufficient resources to cover all costs incurred by states, counties, tribes, and local municipalities, as well as local businesses and agricultural producers. Out of necessity, local governments and nonprofit organizations have quickly responded to this disaster and are incurring significant costs to do so. Our communities and businesses should not have to pay for a disaster that was the result of a federal agency's action.

Finally, we request an immediate review of any ongoing projects in the area that are similar in nature to those at the Gold King Mine. It is important to avoid exacerbating the current disaster and to ensure that any lessons learned from this incident can be included in future remediation plans. In addition, the EPA must have immediate contingency plans in place in case of further instability and contaminant releases from the Gold King Mine or other mines in the upper Animas River basin. In the long-term, the EPA and any other involved federal agencies should work together in coordination with state, tribal, and local officials to develop mitigation and emergency response plans for potential future blowouts from abandoned mine sites. It is crucial that we take these risks seriously and avoid unnecessary delays in emergency response procedures.

Long-term planning to protect the Animas and San Juan River basins by removing heavy metals released from mine sites into the Animas River should involve the careful consideration of all options including the construction of a water treatment plant. Removal of these metals from the water is even more important now to communities and aquatic life downriver as we begin to recover from this tragic disaster.

Thank you for your attention to and consideration of this important issue.

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## 2. EPA test results show mine spill unleashed highly toxic stew Chicago Tribune -- 8/13/2015 Chicago, IL

EPA test results show mine spill unleashed highly toxic stew

The U.S. Environmental Protection Agency announced Thursday that surface-water testing revealed very high levels of lead, arsenic, cadmium and other heavy metals as a sickly-yellow plume of mine waste flowed through Colorado.

These metals far exceeded government exposure limits for aquatic life and humans in the hours after the August 5 spill, which sent 3 million gallons of wastewater through three Western states and the Navajo nation.

The EPA, which released the results after 2 a.m. Eastern time under increasing political pressure, said its analysis shows the heavy metals quickly returned to "pre-event levels" once the plume passed through the area it tested, on the Animas River between Silverton, Colorado, and the downstream municipal water intake for Durango.

The abandoned Gold King mine had been slowly leaking a toxic stew for decades before an EPA crew accidentally unleashed a torrent of waste during an Aug. 5 inspection. EPA Administrator Gina McCarthy has taken full responsibility and promised that the agency will pay for any damage.

The agency tested for 24 metals at the river's surface. One of the most dangerous, lead, was found below the 14th Street bridge in Silverton at more than 200 times higher than the acute exposure limit for aquatic life, and 3,580 times higher than federal standards for human drinking water.

Levels of arsenic were more than 24 times the exposure limit for fish and 823 times the level for human ingestion. Cadmium was found at more than six times the aquatic limit, 33 times that for humans.

The 100-mile-long plume has since dissipated, its heavy metals settling into riverbeds, during the waste's 300-mile journey toward Lake Powell, where the flow joins the Colorado River that supplies water to the Southwest.

McCarthy said Thursday that these results show the river is "restoring itself."

She spoke during a visit to Farmington, New Mexico, where she announced that the EPA has released \$500,000 to help supply clean water for crop irrigation and livestock in northwestern New Mexico.

McCarthy acknowledged the concerns of state, local and tribal officials about the heavy metals now trapped in the river bed and along the banks, and promised to deal with the sediment problem over the long term, but offered no specifics.

Outside experts are warning of the potential for continued risk to both wildlife and humans for many years to come as the toxic metals settle into river bottoms and seep into groundwater.

"Heavy rains or flash floods could release any lingering contaminated sediments now trapped in the Animas river bed," said Marco Kaltofen, a Boston-based civil engineer who specializes in water pollution.

Over the long term, these metals can seep into the surrounding water table, potentially polluting drinking wells. The EPA has offered free water testing for homeowners with wells close to the river, but it's unclear how long that offer stands.

Attorneys general from Colorado, New Mexico and Utah vowed to ensure citizens and towns are compensated, even if the full impact isn't understood for many years.

"We have to be vigilant as attorneys general, as the lawyers for the state, as protectors of the environment, to be sure that the assurances that we received today from the Environmental Protection Agency are the same in two years, in five years, even 10 years when we discover what the damage to the environment actually is," said Colorado's attorney general, Cynthia Coffman.

Gold King is one of a cluster of old mines sending pollution downhill from tunnels dug 11,000 feet high in Colorado's San Juan Mountains. The spill made its impact far greater and more evident, disrupting thousands of lives and livelihoods.

Heavy metals occur naturally in the Rocky Mountains; they get released when water enters mines, either through mining operations or from snow and rain. Chemical reactions create sulfuric acid that dissolves heavy metals into the water, creating a toxic mess.

The spill happened as an EPA-supervised crew inspected a horizontal passageway into the partially collapsed and Gold King mine, which was abandoned in 1923. The workers dislodged some material, turning the steady flow of contaminated water into a torrent.

There are hundreds of thousands of abandoned mines nationwide, and many cause damaging pollution. McCarthy ordered EPA crews to cease field investigations of these mines nationwide while the spill is investigated.

The toxic Colorado river spill and the menace of old hard-rock mines

Navajo farmers have been nervously waiting for someone to announce that it's OK to irrigate their crops again as harvest time approaches for their corn and alfalfa.

According to the New Mexico Environment Department, tests done four days after the spill on the surface of the Animas River as it flows into the Navajo Nation showed safe levels of everything but lead, which will be removed through water treatment before human consumption.

Navajo President Russell Begaye said EPA officials were urging tribal members to sign claim forms at public hearings, but he advised waiting to make sure they're not waiving rights to make future claims. The EPA said claims must be submitted within two years, even though it may take much longer to learn the extent of the damage.

Cleaning up mine waste can cost a staggering amount of money. The Summitville gold mine in southern Colorado became a Superfund site after the Summitville Consolidated Mining Co. declared bankruptcy. Contaminated water still drains from it many years later, despite more than \$210 million spent on remediation, according to the EPA.

EPA spill liaison Nat Miullo suggested the danger from this spill diminished after the initial burst of tainted water dissipated, and any future spike caused by stirred-up sediments would be "much, much smaller in scale."

Neither is the U.S. Bureau of Reclamation concerned about health risks in Lake Powell. A Colorado-based bureau spokeswoman, Justyn Liff, said the waste represents fewer than five Olympic-size swimming pools of water, a tiny amount for a reservoir that could fill about 6.4 million Olympic pools.

But there are other ways to consider the same data: Hydrologists usually measure by the acrefoot and acre-inch, and say 3 million gallons could cover 110 acres with an inch of contaminant-laden toxic sludge.

This is why people downstream are so intent on determining where the contamination settles.

"Those are some of the longer-term issues that affect humans as well as wildlife," New Mexico Environment Secretary Ryan Flynn said.

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### 3. After Colorado Waste Spill, E.P.A. Halts Field Investigations New York Times -- 8/12/2015 New York, NY

After Colorado Waste Spill, E.P.A. Halts Field Investigations JULIE TURKEWITZ AUG. 12, 2015

DENVER — After a contractor for the Environmental Protection Agency accidentally caused a

mine to burst during a field investigation — releasing more than three million gallons of toxic waste — the agency's top official said Wednesday that she had halted all similar investigations until further notice.

"It is just an opportunity for us to screen, to make sure that there is no potential for a release like this in another situation," said Gina McCarthy, the E.P.A. administrator, at a news conference in Durango, Colo., about 50 miles south of the Gold King mine, where the accident took place.

There are an estimated 23,000 abandoned mines in Colorado, according to the state's department of natural resources, and about 500,000 around the country, according to the federal government.

The E.P.A. did not say how many mines are currently the subject of field investigations. The company that was working for the E.P.A. at the Gold King mine was identified by The Wall Street Journal as Environmental Restoration LLC of Fenton, Mo., which identifies itself on its website as a provider of hazardous waste management and removal.

A company secretary said late Wednesday that no one was available to comment. The E.P.A. is seeking an independent review of the cause of the spill, Ms. McCarthy said.

"It is a heartbreaking situation for E.P.A.," she added, saying that the agency would be "transparent and collaborative in making sure people have the information they need."

The spill occurred on Aug. 5, when the contractors were examining the Gold King, an abandoned mine owned by Todd C. Hennis of San Juan Corp. As workers using heavy machinery knocked away debris, a surprise onslaught of orange-yellow water poured out.

The spill prompted Utah, Colorado, New Mexico and the Navajo Nation to declare states of emergency. Levels of arsenic, lead and other metals rose in the areas south of the mine, though E.P.A. officials said Wednesday that tests indicated that in places where the toxic plume had already passed the water was returning to the levels of toxicity it had before the accident.

Officials have not determined what health risks, if any, the spill poses.

On Wednesday, the attorneys general of Colorado, New Mexico and Utah met in Durango to discuss a course of action. Through a spokesman, Colorado's attorney general, Cynthia H. Coffman, said a lawsuit against the E.P.A. is a possibility. But the spokesman, Roger Hudson, added that "litigation is not our first choice."

The president of the Navajo Nation, Russell Begaye, has said he plans to sue the agency.

The toxic plume flowed out of Gold King and into the Animas and San Juan rivers, toward Utah's Lake Powell. E.P.A. officials have been testing water along the path for signs of contamination, and say that they will release results as they have them.

The spill spurred waves of anger in communities that consider these water sources to be cultural and economic lifelines. Dan Olson, director of the San Juan Citizens Alliance, an environmental

protection group in Durango, called Ms. McGrath's decision to shut down investigation at other mines "a wise precautionary move until the cause of this accident is fully understood."

Matt Rice, director of the Colorado Basin Program at American Rivers, called the mine burst the country's "wake-up call."

"It's an opportunity to talk about all these time bombs that are at the tops of very important rivers," he said.

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## 4. EPA chief says polluted Animas River 'seems to be restoring itself' Los Angeles Times -- 8/12/2015 Los Angeles, CA

EPA chief says polluted Animas River 'seems to be restoring itself' John M. Glionna

Friction continued Wednesday between state and federal officials over whether it's safe to reopen the Animas River in southern Colorado to recreation one week after 3 million gallons of spilled mine waste turned the waters a sickish mustard color.

Colorado officials insist that the concentration of metals in the river is decreasing and want the river reopened to boating and fishing, both crucial elements of the state's economy. And they want the federal Environmental Protection Agency, whose workers triggered the spill last week at the Gold King Mine, to move faster in its assessment of the river's health.

EPA Administrator Gina McCarthy on Wednesday toured the riverside in Durango, Colo., saying tests showed the levels of various metals had returned to normal.

"I visited the river and took a look at it myself, and the good news is that it seems to be restoring itself," she said. "We're hoping for a return to some sense of normalcy for the use of this river, but the EPA is letting science be its guide."

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#### FOR THE RECORD:

River spill: In the Aug. 12 Section A, an article about the contamination of Colorado's Animas River referred to Jared Blumenfeld as an Environmental Protection Agency spokesman. He is the EPA's administrator for the Pacific Southwest Region.—

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Earlier, Colorado Gov. John Hickenlooper's office released a statement that symbolized the frustration felt by thousands of residents who have been told to stay away from the river until further notice.

"Even though the state and EPA may disagree on the timing, the state's initial analysis shows the

water is significantly improved with little risk to human health at this time," the statement said. "Reopening the river is a local decision so the sooner we give the community and local officials the facts, the better for everyone, especially those who rely on the river for business."

Tuesday brought a terse exchange between Hickenlooper and Shaun McGrath, a regional administrator for the EPA, who asked the governor to stop making comments that the river was returning to good health.

"It doesn't show where we are at right now," McGrath said. "You have to have a couple of days of data to show that you're actually back to baseline conditions, and we're not there yet."

A miffed Hickenlooper responded: "That's nonsense." He said closed businesses were waiting for word of the river's reopening.

Rusty Harris-Bishop, a Superfund project manager for the EPA who is at the site of the spill, said the decision to reopen the river rests with the sheriff of La Plata County.

"We're trying to give him the proper criteria to make that decision," he said. "Like everyone else, we want to get that river open, but we want it to be safe in the long term."

An EPA official said McCarthy was pushing for timely results of any study on metals — such as arsenic, copper, lead and zinc — set loose in the river.

"The word we're getting is, 'Either show that it's safe or it isn't,'" said the official, who asked not to be named because he was not authorized to comment on the situation. "She's equally impatient."

Water rafting companies have been closed for days, turning away customers, but one company said Wednesday it wanted to be sure of the river's safety before allowing customers to return.

"We certainly want to get back to business. A lot of us who are river users ourselves want to get back out there, but we don't want to put people in harm's way," said Matt Gerheardt, manager of the retail store at 4 Corners Whitewater in Durango. "We want to make sure that the contaminant levels are not an issue. The water quality tests have to be verified, and we understand that takes time."

Speaking at the EPA command center in Durango, McCarthy said her agency "was working hard throughout the night and day" to assess consequences of the spill.

We want to reassure everyone that the EPA does take full responsibility for the spill - Gina McCarthy, EPA administrator

"We want to reassure everyone that the EPA does take full responsibility for the spill," which took place at the long-closed mine north of Durango, she said. "No agency could be more upset about this incident and more dedicated to doing our job and doing it right."

McCarthy said 100 EPA experts were on the ground in Colorado and there were hundreds more

in Washington on the case, adding that the agency would conduct its own investigation of the spill as well as solicit a review from an outside agency.

She said the EPA was also reviewing practices at other closed mines nationwide "to avoid a repeat of this mistake — to make sure there is no potential for another release like this."

Meanwhile, New Mexico officials said Wednesday that residents who rely on the Animas River were anxious to get back to normal.

Michele Truby-Tillen, spokeswoman for the San Juan County Office of Emergency Management in New Mexico, said that despite various tests of the river water, the process was not moving fast enough for frustrated residents.

Many people have been ordered not to drink well water, and some residents are still coming to Farmington to take showers.

"We're telling people that the river will remain closed until we can get data that says it's safe," she said. "People are frustrated, but we're doing this for them. If we don't hold off and people get sick, then who are they going to blame?"

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## 5. By the numbers: The massive toll of the Animas River spill CNN -- 8/13/2015 Atlanta, GA

By the numbers: The massive toll of the Animas River spill Ben Brumfield, CNN August 13

The environmental crew had one job: pump out and treat contaminated water at the Gold King Mine in southern Colorado.

Instead, when the workers for the Environmental Protection Agency used heavy equipment to enter the defunct mine on August 5, 2015, a leak sprung. A massive one.

The EPA has taken full responsibility and announced it was temporarily ceasing work at other mines to avoid a repeat.

Water tainted with heavy metal gushed from Gold King into the nearby Animas River, turning it a solid mustard color. It flowed downstream for dozens of miles crossing state lines. It made life miserable for thousands who depend on the river water.

Here is the toll the spill has taken told by the numbers.

3 million

The number of gallons of heavy metal filled wastewater the U.S. Geological Survey says spilled into the Animas River. That's about 60,000 bathtubs full.

The bright discoloration was an obvious flag that something was awry in the river. But the EPA was sluggish with information in the aftermath, as residents worried about possible damage to their health, and businesses on the river shut down.

12,000

That's how many times higher than normal the level of lead was in one water sample tested from the Animas River shortly after the spill.

Lead poisoning is tricky, because at low levels, it can be hard to detect. It can slow down child development and cause learning disabilities, the Mayo Clinic says.

Lead is just one of the many heavy metals released, and it's not the deadliest. The wastewater also contained extremely high levels of arsenic, cadmium, beryllium and mercury. It also contained zinc, iron and copper.

3

The number of states heavily hit by the spill: Colorado, New Mexico and Utah.

The attorneys general of the states hinted they might sue the federal government individually or collectively. But Colorado Attorney General Cynthia Coffman said, "It is too early to know if litigation is necessary or appropriate."

The EPA has mentioned the idea of an independent review of the incident in addition to its own. The attorneys general support this.

2

The number of rivers affected. The heavy metal plume also flowed from the Animas into the San Juan River in New Mexico. It carried the pollution into Utah.

The rivers serve as the source for five water supply systems, the EPA told CNN affiliate KOAT.

It's hard to say how many people the spill affected.

The banks of the rivers are sparsely populated, but they are surrounded by farmland in an otherwise dry to desert terrain, and farmers are dependent upon river water to irrigate their crops.

45,000

That's the population of the largest town affected by the spill: Farmington, New Mexico. It's located on the spot where the Animas flows into the San Juan. The next largest municipality is

Durango, Colorado, with a population of more than 17,000, according to the U.S. Census Bureau.

The Navajo community around the town of Shiprock, which is downstream from Farmington on the San Juan River, is hard hit as well. Some 750 farmers there need river water to irrigate.

The community has vowed legal action against the EPA.

90

That's how many days' water reserves Farmington has before it will need to draw river water. Farmington's reserves also supply nearby towns with drinking water, including Shiprock.

Some residents are concerned the heavy metal spill might seep into groundwater, poisoning wells. More than 400 Farmington residents who draw their water from wells have turned in samples for testing.

A week after the spill, tests indicate that the Animas River is returning to normal, but fears linger over possible long-term consequences. Experts say adverse health effects from heavy metal poisoning can take years to become apparent.

500,000

The rough number of old mines similar to the Gold King Mine that environmental activist organization Earthworks says that need to be cleaned up. Earthworks says some of them could be leaking waste into groundwater nearby.

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## 6. How Dick Cheney Kicked off an Era of Cancer Clusters and Eco-Disasters from Fracking

AlterNet -- 8/13/2015 San Francisco, CA

How Dick Cheney Kicked off an Era of Cancer Clusters and Eco-Disasters from Fracking The Energy Policy Act of 2005, which holds the Halliburton Loophole, exempts oil and gas firms from environmental protection laws.

By Wenonah Hauter / EcoWatch August 13

This past Saturday, marked a notable 10th anniversary. But it was certainly nothing to celebrate. Ten years ago, President George W. Bush signed the Energy Policy Act of 2005. The giant energy bill included massive giveaways for the fossil fuel, nuclear and ethanol industries and provided only token incentives for renewables and improved energy efficiency. But the most infamous piece of the law was what is now commonly known as the "Halliburton Loophole," an egregious regulatory exemption that ushered in the disastrous era of widespread oil and gas fracking that currently grips our nation.

Fracking— the extreme oil and gas extraction method that involves blasting millions of gallons of water mixed with toxic chemicals underground at enormous pressures to break apart subterranean rock — has exploded in the last decade. More than 270,000 wells have been fracked in 25 states throughout the nation. More than 10 million Americans live within a mile of a fracking site. This means that 10 million Americans — and truly many more — have been placed directly in harm's way. Hundreds of peer-reviewed studies have connected fracking to serious human health effects, including cancer, asthma and birth defects.

For this we can thank the Energy Policy Act of 2005, the law that holds the Halliburton Loophole. Named after Dick Cheney and the notorious corporation he led before becoming vice president, the law (championed by Cheney and disgraced Enron founder Kenneth Lay, among others) explicitly exempted fracking operations from key provisions of the Safe Drinking Water Act. These exemptions from one of America's most fundamental environmental protection laws provided the oil and gas industry the immunity it required to develop a highly polluting process on a grand national scale.

One of the most troubling repercussions is how fracking companies hide the contents of their toxic water and chemical solutions pumped into the ground. Contamination of underground drinking water sources from fracking fluids is a glaring threat to public health and safety. Yet even doctors responding to fracking-related health complaints can't access data on what particular chemicals their patients may have been exposed to.

But the Halliburton Loophole wasn't the only fracking enabler in the Energy Policy Act. The act granted the Federal Energy Regulatory Commission (FERC) sweeping new authority to supersede state and local decision-making with regard to the citing of fracked gas pipelines and infrastructure. It also shifted to FERC industry oversight and compliance responsibility for the National Environmental Policy Act of 1969, another key law. This was akin to putting the fox in charge of the hen house.

As it stands, FERC is entirely unaccountable to public will. It is unaccountable to Congress and even the White House. Commissioners are appointed to five-year terms and can do as they please. Until a law reigning in FERC is passed, the commission will continue to act as a rubber-stamp for the fossil fuel industry.

Additionally, the Energy Policy Act repealed an important anti-monopoly law, the Public Utility Holding Company Act of 1935 (PUHCA). PUHCA safeguarded consumers from the overreach of the oil and gas industry and banks that did business with those companies. It prevented the formation of giant state and regional energy cartels that could manipulate energy costs, engage in profiteering and exert undue influence over political debate. The Energy Policy Act transferred most of this oversight to FERC. Since then, the largest American energy companies have grown significantly more powerful and spent almost a billion dollars on federal lobbying, according to OpenSecrets.org.

The 10th anniversary of the Energy Policy Act is indeed a sad occasion, but it provides us with a

ripe opportunity to reexamine our nation's disastrous policy of doubling-down on fossil fuels over the last decade, thanks to the extreme process of fracking. For the sake of countless Americans who are currently suffering health effects caused by fracking and the countless more who will suffer in the future, we must immediately curtail our dependence on oil and gas and turn decisively toward a truly clean, renewable energy future.

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### 7. Officials urge study of compressors, pipelines Daily Star, The -- 8/13/2015 Oneonta, NY

Officials urge study of compressors, pipelines Aug 13, 2015. Joe Mahoney Staff Writer

Concerned about the potential health effects from compressor stations and other infrastructure connected to the shale gas industry, some local officials have joined a prominent physicians' group in urging state leaders to conduct the same type of study that led the Cuomo administration to ban hydraulic fracturing.

"The governor is in an awkward position on this because the state Health Department convinced him to put a ban on fracking, and the health concerns with these compressor stations and pipeline are really no different," Schoharie Town Supervisor Gene Milone said Wednesday.

In recent comments to the Federal Energy Regulatory Commission, the Medical Society of the State of New York, a physicians' association, noted compressor stations routinely vent methane gas, and noted chemical and radioactive emissions not only occur near well pads but also along pipelines.

The organization went on to state that the emissions include "dangerous mixtures" of carcinogens, mutagens, endocrine disruptors, neurotoxins, respiratory irritants and hematological and cardiovascular toxins.

Citing those risks as well as the potential for pipelines and compressors to be damaged by accidents and natural disasters, it called on "all levels of government" to take up a health assessment review of natural gas infrastructure.

A spokesman for the Department of Environmental Conservation, one of the state executive agencies overseen by Cuomo, offered no immediate response when asked if the agency would consider having an environmental health assessment completed on gas infrastructure.

The agency is expected to act soon on the Constitution Pipeline company's request for water certificates needed before the construction of the 124-mile transmission system running from Pennsylvania to the Schoharie town of Wright can commence.

Toxic emissions from compressor stations have been among the chief concerns of activists fighting energy giant Kinder Morgan's proposed compressor station for the town of Franklin. That 30,000-horsepower station would sit near the border of Otego in Otsego County, and would help move gas along the Northeast Energy Direct (NED) pipeline that would be run by Kinder Morgan subsidiary Tennessee Gas Co.

A rally will be held by Compressor Free Franklin at noon Thursday near a home at 483 Van Tassell Road in Franklin. Several Otego residents have also joined the fight against that compressor station, saying their community would be downwind from it.

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### 8. Ancient Chinese graffiti warns of droughts ahead Climate News Network -- 8/13/2015 Internet

Ancient Chinese graffiti warns of droughts ahead
Cave inscriptions stretching back five centuries record the impact of disastrous droughts in central China – and help scientists predict that another is due before 2040.

By Alex Kirby LONDON, 13 August, 2015

Scientists who have discovered ancient graffiti on the walls of a cave in central China and examined the chemical make-up of the cave's stalagmites say a serious drought is likely to affect the region within the next few decades.

The international research team found a series of inscriptions on the walls of Dayu cave, in the Qinling mountains of central China, that describe the impacts of seven droughts between 1520 and 1920.

The team, which included Chinese scientists and colleagues from the University of Cambridge, UK, has published its findings in the journal Scientific Reports.

The authors say the information in the inscriptions and the team's detailed chemical analysis of the stalagmites together show how societies are affected by droughts over time. They say this is the first time it has been possible to conduct an on-site comparison of historical and geological records from the same cave.

Reduced rainfall

Their results cover nearly five centuries, but it is one of their conclusions that speaks most directly to the present day: they say their findings point to potentially greatly reduced rainfall in the region in the near future, underlying the importance of preparing for a world where droughts are more common.

The climate in the area around the cave is dominated by the summer monsoon, in which about 70% of the year's rain falls during a few months. So when the monsoon is late or early, too short or too long, it has a major impact on the region's ecosystem.

Significantly, the team also found that the droughts they identified corresponded with the El Niño-Southern Oscillation (ENSO) cycle – the periodic weather disturbance centred on the eastern Pacific that can cause widespread disruption.

Because human-caused climate change will make ENSO events more severe, they say, this too could mean that the region faces more serious droughts.

"The inscriptions were a crucial way for us to confirm the link between climate and the geochemical record in the cave, and the effect that drought has on a landscape"

The story of the last five centuries that the cave revealed is dramatic. "In addition to the obvious impact of droughts, they have also been linked to the downfall of cultures," says one of the paper's co-authors, Dr Sebastian Breitenbach, a research associate in the University of Cambridge's Department of Earth Sciences. "When people don't have enough water, hardship is inevitable and conflict arises.

"In the past decade, records found in caves and lakes have shown a possible link between climate change and the demise during the last 1800 years of several Chinese dynasties, such as the Tang, Yuan and Ming Dynasties."

The droughts of the 1890s led to severe starvation and triggered local social instability, which eventually resulted in a fierce conflict between government and civilians in 1900. The drought in 1528 also led to widespread starvation, and there were even reports of cannibalism.

"There are examples of things like human remains, tools and pottery being found in caves, but it's exceptional to find something like these dated inscriptions," says the lead author, Dr Liangcheng Tan, associate professor at the Institute of Earth Environment at the Chinese Academy of Sciences in Xi'an.

"Combined with the evidence found in the physical formations in the cave, the inscriptions were a crucial way for us to confirm the link between climate and the geochemical record in the cave, and the effect that drought has on a landscape."

Chemical profile

The researchers examined sections of cave formations – or speleothems – and found that concentrations of certain elements were strongly correlated to periods of drought, which could then be verified by cross-referencing the chemical profile of the cave with the writing on the walls.

When cut open, stalagmites frequently reveal a series of layers that record their annual growth, just like tree rings. The researchers analysed and dated the ratios of the stable isotopes of oxygen and carbon, as well as concentrations of uranium and other elements. Changes in climate, moisture levels and surrounding vegetation all affect these elements.

They then used their results to construct a model of future precipitation in the region, starting in

1982. Their model correlated with a drought that occurred in the 1990s, and suggests another drought will occur in the late 2030s.

Dr Breitenbach says: "Things in the world are different from when these cave inscriptions were written, but we're still vulnerable to these events – especially in the developing world." – Climate News Network

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### 9. Judge denies DuPont testimony, expert motions West Virginia Record, The -- 8/12/2015 Charleston, WV

Judge denies DuPont testimony, expert motions Jessica Karmasek Aug. 12

COLUMBUS, Ohio – A federal judge, for the most part, denied motions by DuPont asking the court to exclude certain testimony and experts in an ongoing mass tort against the chemical company by Mid-Ohio Valley residents who were exposed to C8 in their drinking water.

Judge Edmund A. Sargus Jr. filed two orders: one on Aug. 6, denying and affirming in part a motion to exclude expert opinions related to corporate conduct; and another on Aug. 11, denying a motion to exclude "narrative testimony."

Both orders were filed in the U.S. District Court for the Southern District of Ohio, weeks after Sargus filed two other orders denying DuPont's motion for summary judgment and its proposed causation experts.

Sargus, in his Aug. 6 order, ruled that he would not prohibit the plaintiffs' experts on corporate conduct – six in all – from testifying.

DuPont, in its motion, argued that any expert testimony "offering opinions as to corporate intent and motives, and measuring corporate conduct against internal aspirations and inapplicable ethical standards" is not a proper subject of expert testimony and should be excluded from trial.

The company argued that the plaintiffs' experts would opine on their characterization of DuPont's knowledge from reading "uncomplicated" historical documents and then measuring that conduct against various "inapplicable" standards.

DuPont contends doing so is not helpful to the jury and is "misleading, confusing and cumulative of other evidence."

Sargus disagreed.

"The historical documents to which DuPont refers include the factual record that contains evidence of DuPont's conduct that began over 50 years ago and involves well over a decade of

complex litigation, millions of documents, hundreds of witnesses operating in dozens of different regulatory, scientific and technical fields, including, among others, toxicology, epidemiology, risk assessment, medicine, occupational health, regulatory compliance, public health and chemical industry practices and policies," the judge wrote in the 37-page order.

But the judge noted that the plaintiffs' experts – in particular, Dr. Michael B. Siegel – cannot speak to the company's intent.

DuPont argued in its motion that Siegel's testimony should be excluded, in its entirety, because it speculates about the company's motive, intent and/or state of mind and "makes legal connections" that should be reserved for the jury.

Sargus agreed that a "significant portion" of Siegel's testimony is excludable.

"Dr. Siegel's opinions as to what he 'would consider to be an exemplary company, a good corporate citizen or a company with a strong sense of social responsibility... the minimum level at which [he] would expect a company to act if it has a reasonable degree of concern for the health of its surrounding community' are ones appropriate for a jury to decide," the judge wrote.

"There is no special expertise necessary to make these determinations."

In his Aug. 11 order, Sargus said he would not exclude the opinions of two of the plaintiffs' experts, James S. Smith and Robert W. Johnson.

Smith holds various degrees in chemistry and is a chemist at and president of Trillium Inc. Johnson is an economist. Smith's testimony focuses on the scientific methods DuPont used to support its decision about the release of C8. Johnson's testimony focuses on the financial condition of the company in the event the trial goes to a punitive damages phase.

DuPont argued that both experts' testimonies are "unreliable."

"Dr. Smith's opinions rest on a reliable foundation and the method he utilized, i.e., drawing conclusions from a set of observations based on extensive and specialized knowledge and experience, is the same appropriate methodology used by Dr. (Shane A.) Snyder," Sargus wrote, comparing Smith to DuPont's own expert.

The judge said Johnson could be questioned about the meaning of SEC filings and proxy statements presented to the jury and then be subject to cross examination.

"The court think it is better for the jury to understand what the documents mean through the questioning of Mr. Johnson by counsel for both parties," he wrote in the 15-page order.

DuPont spokesman Daniel Turner declined to comment on the orders. He said in an email it would not be "appropriate" for the company to comment given that the trial is set to begin in September.

The first of the MDL lawsuits to go to trial is scheduled for Sept. 14 in Columbus and is expected to last four weeks.

The lawsuits ask for compensatory and punitive damages and payment of plaintiffs' costs for the injuries caused by what is described as DuPont's "reckless and negligent" contamination of drinking-water supplies.

DuPont has used C8, also known as perfluorooctanoic acid or PFOA, in making nonstick and stain- and water-resistant coatings for products – including pots, pans, carpets and clothes – for more than 50 years. Court records show DuPont scientists issued internal warnings about C8 as early as 1961.

The litigation between DuPont and the plaintiffs began in 2001 in a class action lawsuit in Wood County Circuit Court and ended in November 2004 when the parties entered into a class-wide settlement.

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## 10. Italy's ban on neonicotinoids effective, U of Guelph conference told Guelph Mercury -- 8/13/2015 Ontario, Canada

Italy's ban on neonicotinoids effective, U of Guelph conference told Guelph Mercury Joanne Shuttleworth

GUELPH — When people think of bees, they think of honey and of how bees sting.

But bees and other pollinators are critical to agriculture and as such they contribute to the economy. With their numbers in alarming decline, scientists around the world are working on the problem.

Four of them were at the University of Guelph Wednesday evening for a panel discussion on the research they are doing and the implications for beekeepers and farmers. And the common result of their separate research is that the practice of treating seeds with neonicotinoids to make them pest-resistant is killing the bee population.

The session was part of the annual beekeeping conference organized by the U of G, the Ontario Beekeepers' Association and the Eastern Apicultural Society.

The panel included: Ernesto Guzman, director of the Honey Bee Research Centre at U of G; Nigel Raine, the Rebanks Family Chair in Pollinator Conservation at U of G; Franco Mutinelli, professor at Zooprofilattico Sperimentale delle Venezie, Italy; and Christian Krupke, professor of entomology at Purdue University.

Kelly McAslan, with the Ontario Ministry of Agriculture and Rural Affairs' animal health division, gave a brief overview of the state of the bee industry in Ontario. She said honey and

honey products are a \$30-million business in Ontario and pollination is a \$395-million industry. And Ontario pollinators contribute \$993 million to the national economy.

She said Ontario is tightening its regulations around neonicotinoids and is seeking feedback.

There are lots of stressors that threaten bee populations including habitat loss and the loss in diversity of bee food sources. There are also viruses, widespread use of insecticides in agriculture and climate change.

"The evidence is clear that pollinators are in decline. So think how we can preserve existing habitats and reduce those environmental stressors," Raine said.

Mutinelli said Italy instituted a partial ban on neonicotinoids in 2008 and it has been extended each year since. No active substances are allowed in seed coatings and the use of neonicotinoids is restricted to specific cases.

It's been effective, he said.

"After the ban there has been strong improvement," Mutinelli said. "The effect of the ban was immediate."

He said corn producers were worried about losing crop yield to disease, "but that didn't happen," he said. "The ban has been now seven years and crop yield is within the expected range."

Krupke's research indicates that the benefit of neonicotinoid treatment to corn seeds only lasts two weeks. Then it washes away with the water and seeps into the soil.

Further, he said the pests the neonicotinoids are supposed to fend off are not present in the majority of farms. But they are really toxic to honey bees, he said.

"The benefit of the seed treatments is hard to justify," he said. "We know the status quo just doesn't work."

One woman in the audience said she gets frustrated when scientists do good research and find good information, but wind up saying nothing can be done.

"It really bothers me when these talks end by saying we can't do much about it. I think we could do cross-country bans and I think we should. The evidence is taking us there," she said.

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## 11. The Teflon Toxin DuPont and the Chemistry of Deception Intercept, The -- 8/11/2015 New York, NY

The Teflon Toxin DuPont and the Chemistry of Deception

#### Sharon Lerner Aug. 11

KEN WAMSLEY SOMETIMES DREAMS that he's playing softball again. He'll be at center field, just like when he played slow pitch back in his teens, or pounding the ball over the fence as the crowd goes wild. Other times, he's somehow inexplicably back at work in the lab. Wamsley calls them nightmares, these stories that play out in his sleep, but really the only scary part is the end, when "I wake up and I have no rectum anymore."

Wamsley is 73. After developing rectal cancer and having surgery to treat it in 2002, he walks slowly and gets up from the bench in his small backyard slowly. His voice, which has a gentle Appalachian lilt, is still animated, though, especially when he talks about his happier days. There were many. While Wamsley knew plenty of people in Parkersburg, West Virginia, who struggled to stay employed, he made an enviable wage for almost four decades at the DuPont plant here. The company was generous, helping him pay for college courses and training him to become a lab analyst in the Teflon division.

He enjoyed the work, particularly the precision and care it required. For years, he measured levels of a chemical called C8 in various products. The chemical "was everywhere," as Wamsley remembers it, bubbling out of the glass flasks he used to transport it, wafting into a smelly vapor that formed when he heated it. A fine powder, possibly C8, dusted the laboratory drawers and floated in the hazy lab air.

At the time, Wamsley and his coworkers weren't particularly concerned about the strange stuff. "We never thought about it, never worried about it," he said recently. He believed it was harmless, "like a soap. Wash your hands [with it], your face, take a bath."

Today Wamsley suffers from ulcerative colitis, a bowel condition that causes him sudden bouts of diarrhea. The disease also can — and his case, did — lead to rectal cancer. Between the surgery, which left him reliant on plastic pouches that collect his waste outside his body and have to be changed regularly, and his ongoing digestive problems, Wamsley finds it difficult to be away from his home for long.

Sometimes, between napping or watching baseball on TV, Wamsley's mind drifts back to his DuPont days and he wonders not just about the dust that coated his old workplace but also about his bosses who offered their casual assurances about the chemical years ago.

"Who knew?" he asked. "When did they know? Did they lie?"

NTIL RECENTLY, FEW PEOPLE had heard much about chemicals like C8. One of tens of thousands of unregulated industrial chemicals, perfluorooctanoic acid, or PFOA — also called C8 because of the eight-carbon chain that makes up its chemical backbone — had gone unnoticed for most of its eight or so decades on earth, even as it helped cement the success of one of the world's largest corporations.

Several blockbuster discoveries, including nylon, Lycra, and Tyvek, helped transform the E. I. du Pont de Nemours company from a 19th-century gunpowder mill into "one of the most

successful and sustained industrial enterprises in the world," as its corporate website puts it. Indeed, in 2014, the company reaped more than \$95 million in sales each day. Perhaps no product is as responsible for its dominance as Teflon, which was introduced in 1946, and for more than 60 years C8 was an essential ingredient of Teflon.

Called a "surfactant" because it reduces the surface tension of water, the slippery, stable compound was eventually used in hundreds of products, including Gore-Tex and other waterproof clothing; coatings for eye glasses and tennis rackets; stain-proof coatings for carpets and furniture; fire-fighting foam; fast food wrappers; microwave popcorn bags; bicycle lubricants; satellite components; ski wax; communications cables; and pizza boxes.

Concerns about the safety of Teflon, C8, and other long-chain perfluorinated chemicals first came to wide public attention more than a decade ago, but the story of DuPont's long involvement with C8 has never been fully told. Over the past 15 years, as lawyers have been waging an epic legal battle — culminating as the first of approximately 3,500 personal injury claims comes to trial in September — a long trail of documents has emerged that casts new light on C8, DuPont, and the fitful attempts of the Environmental Protection Agency to deal with a threat to public health.

This story is based on many of those documents, which until they were entered into evidence for these trials had been hidden away in DuPont's files. Among them are write-ups of experiments on rats, dogs, and rabbits showing that C8 was associated with a wide range of health problems that sometimes killed the lab animals. Many thousands of pages of expert testimony and depositions have been prepared by attorneys for the plaintiffs. And through the process of legal discovery they have uncovered hundreds of internal communications revealing that DuPont employees for many years suspected that C8 was harmful and yet continued to use it, putting the company's workers and the people who lived near its plants at risk.

The best evidence of how C8 affects humans has also come out through the legal battle over the chemical, though in a more public form. As part of a 2005 settlement over contamination around the West Virginia plant where Wamsley worked, lawyers for both DuPont and the plaintiffs approved a team of three scientists, who were charged with determining if and how the chemical affects people.

In 2011 and 2012, after seven years of research, the science panel found that C8 was "more likely than not" linked to ulcerative colitis — Wamsley's condition — as well as to high cholesterol; pregnancy-induced hypertension; thyroid disease; testicular cancer; and kidney cancer. The scientists' findings, published in more than three dozen peer-reviewed articles, were striking, because the chemical's effects were so widespread throughout the body and because even very low exposure levels were associated with health effects.

We know, too, from internal DuPont documents that emerged through the lawsuit, that Wamsley's fears of being lied to are well-founded. DuPont scientists had closely studied the chemical for decades and through their own research knew about some of the dangers it posed. Yet rather than inform workers, people living near the plant, the general public, or government agencies responsible for regulating chemicals, DuPont repeatedly kept its knowledge secret.

Another revelation about C8 makes all of this more disturbing and gives the upcoming trials, the first of which will be held this fall in Columbus, Ohio, global significance: This deadly chemical that DuPont continued to use well after it knew it was linked to health problems is now practically everywhere.

A man-made compound that didn't exist a century ago, C8 is in the blood of 99.7 percent of Americans, according to a 2007 analysis of data from the Centers for Disease Control, as well as in newborn human babies, breast milk, and umbilical cord blood. A growing group of scientists have been tracking the chemical's spread through the environment, documenting its presence in a wide range of wildlife, including Loggerhead sea turtles, bottlenose dolphins, harbor seals, polar bears, caribou, walruses, bald eagles, lions, tigers, and arctic birds. Although DuPont no longer uses C8, fully removing the chemical from all the bodies of water and bloodstreams it pollutes is now impossible. And, because it is so chemically stable — in fact, as far as scientists can determine, it never breaks down — C8 is expected to remain on the planet well after humans are gone from it.

Eight companies are responsible for C8 contamination in the U.S. (In addition to DuPont, the leader by far in terms of both use and emissions, seven others had a role, including 3M, which produced C8 and sold it to DuPont for years.) If these polluters were ever forced to clean up the chemical, which has been detected by the EPA 716 times across water systems in 29 states, and in some areas may be present at dangerous levels, the costs could be astronomical — and C8 cases could enter the storied realm of tobacco litigation, forever changing how the public thinks about these products and how a powerful industry does business.

In some ways, C8 already is the tobacco of the chemical industry — a substance whose health effects were the subject of a decades-long corporate cover-up. As with tobacco, public health organizations have taken up the cause — and numerous reporters have dived into the mammoth story. Like the tobacco litigation, the lawsuits around C8 also involve huge amounts of money. And, like tobacco, C8 is a symbol of how difficult it is to hold companies responsible, even when mounting scientific evidence links their products to cancer and other diseases.

There is at least one sense in which the tobacco analogy fails. Exposure to tobacco usually contains an element of volition, and most people who smoked it in the past half century knew about some of the risks involved. But the vast majority of Americans — along with most people on the planet — now have C8 in their bodies. And we've had no choice in the matter.

FOR ITS FIRST HUNDRED YEARS, DuPont mostly made explosives, which, while hazardous, were at least well understood. But by the 1930s, the company had expanded into new products that brought new mysterious health problems. Leaded gasoline, which DuPont made in its New Jersey plant, for instance, wound up causing madness and violent deaths and life-long institutionalization of workers. And certain rubber and industrial chemicals inexplicably turned the skin of exposed workers blue.

Perhaps most troubling, at least to a DuPont doctor named George Gehrmann, was a number of bladder cancers that had recently begun to crop up among many dye workers. Worried over "the

tendency to believe [chemicals] are harmless until proven otherwise," Gehrmann pushed DuPont to create Haskell Laboratories in 1935. Haskell was one of the first in-house toxicology facilities and its first project was to address the bladder cancers. But the inherent problems of assigning staff scientists to study a company's own employees and products became clear from the outset.

One of Haskell's first employees, a pathologist named Wilhelm Hueper, helped crack the bladder cancer case by developing a model of how the dye chemicals led to disease. But the company forbade him from publishing some of his research and, according to epidemiologist and public health scholar David Michaels, fired him in 1937 before going on to use the chemicals in question for decades.

C8 would prove to be arguably even more ethically and scientifically challenging for Haskell. From the beginning, DuPont scientists approached the chemical's potential dangers with rigor. In 1954, the very year a French engineer first applied the slick coating to a frying pan, a DuPont employee named R. A. Dickison noted that he had received an inquiry regarding C8's "possible toxicity." In 1961, just seven years later, in-house researchers already had the short answer to Dickison's question: C8 was indeed toxic and should be "handled with extreme care," according to a report filed by plaintiffs. By the next year experiments had honed these broad concerns into clear, bright red flags that pointed to specific organs: C8 exposure was linked to the enlargement of rats' testes, adrenal glands, and kidneys. In 1965, 14 employees, including Haskell's then-director, John Zapp, received a memo describing preliminary studies that showed that even low doses of a related surfactant could increase the size of rats' livers, a classic response to exposure to a poison.

The company even conducted a human C8 experiment, a deposition revealed. In 1962, DuPont scientists asked volunteers to smoke cigarettes laced with the chemical and observed that "Nine out of ten people in the highest-dosed group were noticeably ill for an average of nine hours with flu-like symptoms that included chills, backache, fever, and coughing."

Because of its toxicity, C8 disposal presented a problem. In the early 1960s, the company buried about 200 drums of the chemical on the banks of the Ohio River near the plant. An internal DuPont document from 1975 about "Teflon Waste Disposal" detailed how the company began packing the waste in drums, shipping the drums on barges out to sea, and dumping them into the ocean, adding stones to make the drums sink. Though the practice resulted in a moment of unfavorable publicity when a fisherman caught one of the drums in his net, no one outside the company realized the danger the chemical presented. At some point before 1965, ocean dumping ceased, and DuPont began disposing of its Teflon waste in landfills instead.

IN 1978, BRUCE KARRH, DuPont's corporate medical director, was outspoken about the company's duty "to discover and reveal the unvarnished facts about health hazards," as he wrote in the Bulletin of the New York Academy of Medicine at the time. When deposed in 2004, Karrh emphasized that DuPont's internal health and safety rules often went further than the government's and that the company's policy was to comply with either laws or the company's internal health and safety standards, "whichever was the more strict." In his 1978 article, Karrh also insisted that a company "should be candid, and lay all the facts on the table. This is the only responsible and ethical way to go."

Yet DuPont only laid out some of its facts. In 1978, for instance, DuPont alerted workers to the results of a study done by 3M showing that its employees were accumulating C8 in their blood. Later that year, Karrh and his colleagues began reviewing employee medical records and measuring the level of C8 in the blood of the company's own workers in Parkersburg, as well as at another DuPont plant in Deepwater, New Jersey, where the company had been using C8 and related chemicals since the 1950s. They found that exposed workers at the New Jersey plant had increased rates of endocrine disorders. Another notable pattern was that, like dogs and rats, people employed at the DuPont plants more frequently had abnormal liver function tests after C8 exposure.

DuPont elected not to disclose its findings to regulators. The reasoning, according to Karrh, was that the abnormal test results weren't proven to be adverse health effects related to C8. When asked about the decision in deposition, Karrh said that "at that point in time, we saw no substantial risk, so therefore we saw no obligation to report."

Not long after the decision was made not to alert the EPA, in 1981, another study of DuPont workers by a staff epidemiologist declared that liver test data collected in Parkersburg lacked "conclusive evidence of an occupationally related health problem among workers exposed to C-8." Yet the research might have reasonably led to more testing. An assistant medical director named Vann Brewster suggested that an early draft of the study be edited to state that DuPont should conduct further liver test monitoring. Years later, a proposal for a follow-up study was rejected.

If the health effects on humans could still be debated in 1979, C8's effects on animals continued to be apparent. A report prepared for plaintiffs stated that by then, DuPont was aware of studies showing that exposed beagles had abnormal enzyme levels "indicative of cellular damage." Given enough of the stuff, the dogs died.

DuPont employees knew in 1979 about a recent 3M study showing that some rhesus monkeys also died when exposed to C8, according to documents submitted by plaintiffs. Scientists divided the primates into five groups and exposed them to different amounts of C8 over 90 days. Those given the highest dose all died within five weeks. More notable was that three of the monkeys who received less than half that amount also died, their faces and gums growing pale and their eyes swelling before they wasted away. Some of the monkeys given the lower dose began losing weight in the first week it was administered. C8 also appeared to affect some monkeys' kidneys.

Of course, enough of anything can be deadly. Even a certain amount of table salt would kill a lab animal, a DuPont employee named C. E. Steiner noted in a confidential 1980 communications meeting. For C8, the lethal oral dose was listed as one ounce per 150 pounds, although the document stated that the chemical was most toxic when inhaled. The harder question was to determine a maximum safe dosage. How much could an animal — or a person — be exposed to without having any effects at all? The 1965 DuPont study of rats suggested that even a single dose of a similar surfactant could have a prolonged effect. Nearly two months after being exposed, the rats' livers were still three times larger than normal.

Steiner declared that there was no "conclusive evidence" that C8 harmed workers, yet he also stated that "continued exposure is not tolerable." Because C8 accumulated in bodies, the potential for harm was there, and Steiner predicted the company would continue medical and toxicological monitoring and described plans to supply workers who were directly exposed to the chemical with protective clothing.

Two years after DuPont learned of the monkey study, in 1981, 3M shared the results of another study it had done, this one on pregnant rats, whose unborn pups were more likely to have eye defects after they were exposed to C8. The EPA was also informed of the results. After 3M's rat study came out, DuPont transferred all women out of work assignments with potential for exposure to C8. DuPont doctors then began tracking a small group of women who had been exposed to C8 and had recently been pregnant. If even one in five women gave birth to children who had craniofacial deformities, a DuPont epidemiologist named Fayerweather warned, the results should be considered significant enough to suggest that C8 exposure caused the problems.

As it turned out, at least one of eight babies born to women who worked in the Teflon division did have birth defects. A little boy named Bucky Bailey, whose mother, Sue, had worked in Teflon early in her pregnancy, was born with tear duct deformities, only one nostril, an eyelid that started down by his nose, and a condition known as "keyhole pupil," which looked like a tear in his iris. Another child, who was two years old when the rat study was published in 1981, had an "unconfirmed eye and tear duct defect," according to a DuPont document that was marked confidential.

Like Wamsley, Sue Bailey, one of the plaintiffs whose personal injury suits are scheduled to come to trial in the fall, remembers having plenty of contact with C8. When she started at DuPont in 1978, she worked first in the Nylon division and then in Lucite, she told me in an interview. But in 1980, when she was in the first trimester of her pregnancy with Bucky, she moved to Teflon, where she often sat watch over a large pipe that periodically filled up with liquid, which she had to pump to a pond in back of the plant. Occasionally some of the bubbly stuff would overflow from a nearby holding tank, and her supervisor taught her how to squeegee the excess into a drain.

Soon after Bucky was born, Bailey received a call from a DuPont doctor. "I thought it was just a compassion call, you know: can we do anything or do you need anything?" Bailey recalled. "Shoot. I should have known better." In fact, the doctor didn't express his sympathies, Bailey said, and instead asked her whether her child had any birth defects, explaining that it was standard to record such problems in employees' newborns.

While Bailey was still on maternity leave, she learned that the company was removing its female workers from the Teflon division. She remembers the moment — and that it made her feel deceived. "It sure was a big eye-opener," said Bailey, who still lives in West Virginia but left DuPont a few years after Bucky's birth.

THE FEDERAL TOXIC SUBSTANCES Control Act requires companies that work with chemicals to report to the Environmental Protection Agency any evidence they find that shows

or even suggests that they are harmful. In keeping with this requirement, 3M submitted its rat study to the EPA, and later DuPont scientists wound up discussing the study with the federal agency, saying they believed it was flawed. DuPont scientists neglected to inform the EPA about what they had found in tracking their own workers.

When DuPont began transferring women workers out of Teflon, the company did send out a flier alerting them to the results of the 3M study. When Sue Bailey saw the notice on the bench of the locker room and read about the rat study, she immediately thought of Bucky.

Yet when she went in to request a blood test, the results of which the doctor carefully noted to the thousandth decimal point, and asked if there might be a connection between Bucky's birth defects and the rat study she had read about, Bailey recalls that Dr. Younger Lovelace Power, the plant doctor, said no. According to Karrh's deposition, he told Karrh the same. "We went back to him and asked him to follow up on it, and he did, and came back saying that he did not think it was related."

"I said, 'I was in Teflon. Is this what happened to my baby?" Bailey remembered. "And he said, 'No, no." Power also told Bailey that the company had no record of her having worked in Teflon. Shortly afterward, she considered suing DuPont and even contacted a lawyer in Parkersburg, who she says wasn't interested in taking her case against the town's biggest employer. When contacted for his response to Bailey's recollections, Power declined to comment.

By testing the blood of female Teflon workers who had given birth, DuPont researchers, who then reported their findings to Karrh, documented for the first time that C8 had moved across the human placenta.

In 2005, when the EPA fined the company for withholding this information, attorneys for DuPont argued that because the agency already had evidence of the connection between C8 and birth defects in rats, the evidence it had withheld was "merely confirmatory" and not of great significance, according to the agency's consent agreement on the matter.

Ken Wamsley also remembers when his supervisor told him they had taken female workers out of Teflon. "I said, 'Why'd you send all the women home?' He said, 'Well, we're afraid, we think maybe it hurts the pregnancies in some of the women," recalled Wamsley. "They said, 'Ken, it won't hurt the men."

WHILE SOME DUPONT SCIENTISTS were carefully studying the chemical's effect on the body, others were quietly tracking its steady spread into the water surrounding the Parkersburg plant. After it ceased dumping C8 in the ocean, DuPont apparently relied on disposal in unlined landfills and ponds, as well as putting C8 into the air through smokestacks and pouring waste water containing it directly into the Ohio River, as detailed in a 2007 study by Dennis Paustenbach published in the Journal of Toxicology and Environmental Health.

By 1982, Karrh had become worried about the possibility of "current or future exposure of members of the local community from emissions leaving the plant's perimeter," as he explained

in a letter to a colleague in the plastics department. After noting that C8 stays in the blood for a long time — and might be passed to others through blood donations — and that the company had only limited knowledge of its long-term effects, Karrh recommended that "available practical steps be taken to reduce that exposure."

To get a sense of exactly how extensive that exposure was, in March 1984 an employee was sent out to collect samples, according to a memo by a DuPont staffer named Doughty. The employee went into general stores, markets, and gas stations, in local communities as far as 79 miles downriver from the Parkersburg plant, asking to fill plastic jugs with water, which he then took back for testing. The results of those tests confirmed C8's presence at elevated levels.

Faced with the evidence that C8 had now spread far beyond the Parkersburg plant, internal documents show, DuPont was at a crossroads. Could the company find a way to reduce emissions? Should it switch to a new surfactant? Or stop using the chemical altogether? In May 1984, DuPont convened a meeting of 10 of its corporate business managers at the company's headquarters in Wilmington, Delaware, to tackle some of these questions. Results from an engineering study the group reviewed that day described two methods for reducing C8 emissions, including thermal destruction and a scrubbing system.

"None of the options developed are ... economically attractive and would essentially put the long term viability of this business segment on the line," someone named J. A. Schmid summarized in notes from the meeting, which are marked "personal and confidential."

The executives considered C8 from the perspective of various divisions of the company, including the medical and legal departments, which, they predicted, "will likely take a position of total elimination," according to Schmid's summary. Yet the group nevertheless decided that "corporate image and corporate liability" — rather than health concerns or fears about suits — would drive their decisions about the chemical. Also, as Schmid noted, "There was a consensus that C-8, based on all the information available from within the company and 3M, does not pose a health hazard at low level chronic exposure."

Though they already knew that it had been detected in two local drinking water systems and that moving ahead would only increase emissions, DuPont decided to keep using C8.

In fact, from that point on, DuPont increased its use and emissions of the chemical, according to Paustenbach's 2007 study, which was based on the company's purchasing records, interviews with employees, and historical emissions from the Parkersburg plant. According to the study, the plant put an estimated 19,000 pounds of C8 into the air in 1984, the year of the meeting. By 1999, the peak of its air emissions, the West Virginia plant put some 87,000 pounds of C8 into local air and water. That same year, the company emitted more than 25,000 pounds of the chemical into the air and water around its New Jersey plant, as noted in a confidential presentation DuPont made to the New Jersey Department of Environmental Protection in 2006. All told, according to Paustenbach's estimate, between 1951 and 2003 the West Virginia plant eventually spread nearly 2.5 million pounds of the chemical into the area around Parkersburg.

Essentially, DuPont decided to double-down on C8, betting that somewhere down the line the company would somehow be able to "eliminate all C8 emissions in a way yet to be developed that would not economically penalize the bussiness [sic]," as Schmid wrote in his 1984 meeting notes. The executives, while conscious of probable future liability, did not act with great urgency about the potential legal predicament they faced. If they did decide to reduce emissions or stop using the chemical altogether, they still couldn't undo the years of damage already done. As the meeting summary noted, "We are already liable for the past 32 years of operation."

When contacted by The Intercept for comment, 3M provided the following statement. "In more than 30 years of medical surveillance we have observed no adverse health effects in our employees resulting from their exposure to PFOS or PFOA. This is very important since the level of exposure in the general population is much lower than that of production employees who worked directly with these materials," said Dr. Carol Ley, 3M vice president and corporate medical director. "3M believes the chemical compounds in question present no harm to human health at levels they are typically found in the environment or in human blood." In May 2000, 3M announced that it would phase out its use of C8.

DUPONT CONFRONTED ITS potential liability in part by rehearsing the media strategy it would take if word of the contamination somehow got out. In the weeks after the 1984 meeting, an internal public relations team drafted the first of several "standby press releases." The guide for dealing with the imagined press offered assurances that only "small quantities of [C8] are discharged to the Ohio River" and that "these extremely low levels would have no adverse affects." When a hypothetical reporter, who presumably learned that DuPont was choosing not to invest in a system to reduce emissions, asks whether the company's decision was based on money, the document advises answering "No."

The company went on to draft these just-in-case press releases at several difficult junctures, and even the hypothetical scenarios they play out can be uncomfortable. In one, drafted in 1989, after DuPont had bought local fields that contained wells it knew to be contaminated, the company spokesperson in the script winds up in an outright lie. Although internal documents list "the interests of protecting our plant site from public liability" as one of the reasons for the purchase, when the hypothetical reporter asks whether DuPont purchased the land because of the water contamination, the suggested answer listed in the 1989 standby release was to deny this and to state instead that "it made good business sense to do so."

DuPont drafted another contingency press release in 1991, after it discovered that C8 was present in a landfill near the plant, which it estimated could produce an exit stream containing 100 times its internal maximum safety level. Fears about the possible health consequences were enough to spur the company to once again rehearse its media strategy. ("What would be the effect of cows drinking water from the ... stream?" the agenda from a C8 review meeting that year asked.) Yet other recent and disturbing discoveries had also provoked corporate anxieties.

In 1989, DuPont employees found an elevated number of leukemia deaths at the West Virginia plant. Several months later, they measured an unexpectedly high number of kidney cancers among male workers. Both elevations were plant-wide and not specific to workers who handled C8. But, the following year, the scientists clarified how C8 might cause at least one form of

cancer in humans. In 1991, it became clear not just that C8-exposed rats had elevated chances of developing testicular tumors — something 3M had also recently observed — but, worse still, that the mechanism by which they developed the tumors could apply to humans.

Nevertheless, the 1991 draft press release said that "DuPont and 3M studies show that C-8 has no known toxic or ill health effects in humans at the concentrations detected" and included this reassuring note: "As for most chemicals, exposure limits for C-8 have been established with sufficient safety factors to ensure there is no health concern."

Yet even this prettified version of reality in Parkersburg never saw the light of day. The standby releases were only to be used to guide the company's media response if its bad news somehow leaked to the public. It would be almost 20 years after the first standby release was drafted before anyone outside the company understood the dangers of the chemical and how far it had spread beyond the plant.

IN THE MEANTIME, fears about liability mounted along with the bad news. In 1991, DuPont researchers recommended another study of workers' liver enzymes to follow up on the one that showed elevated levels more than a decade before. But Karrh and others decided against the project, which was predicted to cost \$45,000. When asked about it in a deposition, Karrh characterized the decision as the choice to focus resources on other worthy scientific projects. But notes taken on a discussion of whether or not to carry out the proposed study included the bullet point "liability" and the hand-written suggestion: "Do the study after we are sued."

In a 2004 deposition, Karrh denied that the notes were his and said that the company would never have endorsed such a comment. Although notes from the 1991 meeting describe the presence of someone named "Kahrr," Karrh said that he had no idea who that person was and didn't recall being present for the meeting. When contacted by The Intercept, Karrh declined to comment.

As the secrets mounted so too did anxiety about C8, which DuPont was by now using and emitting not just in West Virginia and New Jersey, but also in its facilities in Japan and the Netherlands. By the time a small committee drafted a "white paper" about C8 strategies and plans in 1994, the subject was considered so sensitive that each copy was numbered and tracked. The top-secret document, which was distributed to high-level DuPont employees around the world, discussed the need to "evaluate replacement of C-8 with other more environmentally safe materials" and presented evidence of toxicity, including a paper published in the Journal of Occupational Medicine that found elevated levels of prostate cancer death rates for employees who worked in jobs where they were exposed to C8. After they reviewed drafts, recipients were asked to return them for destruction.

In 1999, when a farmer suspected that DuPont had poisoned his cows (after they drank from the very C8-polluted stream DuPont employees had worried over in their draft press release eight years earlier) and filed a lawsuit seeking damages, the truth finally began to seep out. The next year, an in-house DuPont attorney named Bernard Reilly helped open an internal workshop on C8 by giving "a short summary of the right things to document and not to document." But Reilly — whose own emails about C8 would later fuel the legal battle that eventually included

thousands of people, including Ken Wamsley and Sue Bailey — didn't heed his own advice.

Reilly clearly made the wrong choice when he used the company's computers to write about C8, which he revealingly called the "the material 3M sells us that we poop to the river and into drinking water along the Ohio River." But the DuPont attorney was right about two things: If C8 was proven to be harmful, Reilly predicted in 2000, "we are really in the soup because essentially everyone is exposed one way or another." Also, as he noted in another prescient email sent 15 years ago: "This will be an interesting saga before it's thru."

EDITORS NOTE: DuPont, asked to respond to the allegations contained in this article, declined to comment due to pending litigation.

In previous statements and court filings, however, DuPont has consistently denied that it did anything wrong or broke any laws. In settlements reached with regulatory authorities and in a class-action suit, DuPont has made clear that those agreements were compromise settlements regarding disputed claims and that the settlements did not constitute an admission of guilt or wrongdoing. Likewise, in response to the personal injury claims of Ken Wamsley, Sue Bailey, and others, DuPont has rejected all charges of wrongdoing and maintained that their injuries were "proximately caused by acts of God and/or by intervening and/or superseding actions by others, over which DuPont had no control." DuPont also claimed that it "neither knew, nor should have known, that any of the substances to which Plaintiff was allegedly exposed were hazardous or constituted a reasonable or foreseeable risk of physical harm by virtue of the prevailing state of the medical, scientific and/or industrial knowledge available to DuPont at all times relevant to the claims or causes of action asserted by Plaintiff."

Coming next: Part 2, the lawsuits that revealed what DuPont knew about C8.

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### 12. 'They figured our neighborhood is black, so they'll do it' Center For Public Integrity -- 8/12/2015 Washington DC

'They figured our neighborhood is black, so they'll do it'
Residents of Southside Syracuse put up a fierce, well-organized fight to stop construction of a sewage plant and still lost
Kristen Lombardi

SYRACUSE, New York — Aggie Lane made her neighborhood's pitch on July 11, 2005. Flanked by eight colleagues from the Partnership for Onondaga Creek, a citizens' voice for the south side of Syracuse, New York, as well as a half-dozen supporters, Lane pressed the case for civil-rights claims targeting a county government bent on putting a sewage plant in her largely African-American community.

At the U.S. Environmental Protection Agency's regional office in New York City Lane presented to a table full of civil-rights investigators and lawyers a PowerPoint detailing the

Southside community's struggles: the state highway dissecting the historically black neighborhood; the industrial plants dumping on residents; and now the sewage treatment facility threatening to add to the burden.

"We all know that a white, middle-class community would not put up with a sewer facility in a residential area," Lane, herself a white, middle-class transplant to Southside Syracuse, said to the regulators.

One year earlier, Lane and fellow members of the Partnership had filed a complaint alleging that the Midland Avenue Regional Treatment Facility — planned by Onondaga County, with state approval — would discriminate against the Southside's black residents "both because of the siting and the [facility's] impacts." Filed under federal civil-rights law, the complaint claimed the plant would harm the "health and overall quality of life of the surrounding community," as well as adjacent Onondaga Creek.

Partnership members believed the complaint epitomized the fight for environmental justice. To bolster their argument, they noted the county's proposal for a similar plant on the north side of Syracuse, then predominantly white. That facility used alternative technology much like the Partnership had been advocating to no avail, according to the complaint, making it smaller and less obtrusive than what Southside residents were facing.

"We felt the county was putting something in here because it's a black area, and the EPA would see right through it," recalled Joanne Stevens, a lifelong resident of the Southside who became a Partnership member.

The EPA's Office of Civil Rights disagreed, dismissing the Partnership's complaint in March 2005 after conducting a six-month investigation without interviewing residents or visiting the Southside area.

Now, at this meeting four months later, EPA investigators said little about the decision. They listened as residents challenged the civil-rights office's finding that the Midland plant did "not have a significant adverse impact" — questioning its rationale for making such a determination and criticizing an inquiry that relied on county records. EPA officials offered a small concession that would give residents hope for their cause:

"If we receive new significant information," one investigator told the group, according to Partnership meeting minutes, "we may investigate."

"They thought that would be the end of it, but they didn't know us," Lane said, alluding to the 650-page addendum the Partnership filed a year later to supplement its case. She remembers mailing it, certified, and following up with a phone call — never to hear from the EPA again.

The brush-off was not unusual. As an investigation by the Center for Public Integrity has shown, the EPA's civil-rights office — assigned to enforce Title VI of the Civil Rights Act of 1964 and assess environmental-discrimination claims filed by communities of color — almost always closes cases without action. Among the minority of Title VI complaints sparking investigation

— 64 such cases over 17 years, including Southside Syracuse — records suggest the office has failed to fulfill its mission of rooting out discriminatory acts at agencies receiving EPA financial assistance.

Regulators have rarely closed an investigation with official action on behalf of minority communities. By the time the Partnership meeting occurred — 12 years after the EPA accepted its first civil-rights claim, in 1993 — the agency had resolved five cases, all without findings of Title VI violations, and through a mediation process not involving the complainants. In the decade since, the agency has settled an additional seven.

Alma Lowry, an environmental lawyer and former director of Syracuse University's public-interest law firm, which represented Southside residents, said EPA's civil-rights record has sent a clear message to citizens: "There's no gavel behind [Title VI]." She once worked at the Detroit law firm that has logged some of the earliest Title VI complaints with the agency; one complaint, filed on behalf of a Flint, Michigan, neighborhood, has remained open, pending investigation, for 16 years. Last month, the Flint community joined four others in a lawsuit challenging the EPA for what it called a "pattern and practice of unreasonable delay . . ." in investigating their civil-rights claims. "The agency hasn't been able to take off its environmental hat and put on its civil-rights hat," Lowry said, explaining why she believes the EPA has never once found a formal Title VI violation in 22 years.

EPA officials declined to discuss details of specific cases, including Syracuse. The director of the agency's civil-rights office, Velveta Golightly-Howell, has promised to make a "full-blown effort" to improve the handling of Title VI complaints. "Our goal is really to provide relief for the complainants who have brought their issues and concerns to [the office]," she said.

The quest for justice in Southside Syracuse, however, tells a larger story of how people in some of the most disadvantaged communities can put forward a strong civil-rights case — replete with letter-writing campaigns, extensive research and what residents considered "smoking gun" documentation suggesting environmental racism — yet see little meaningful response from those enforcing the very law meant to protect them.

To this day, Lowry ranks Southside as "one of the most organized, effective and politically aggressive communities I've ever worked with." Yet it lost its battle against the Midland Avenue sewage plant, a source of bitterness for residents still. Those who fought the hardest cannot help but pin blame on the EPA.

"If that kind of community can't make Title VI work for them," Lowry said, "I don't know who could."

#### A forgotten neighborhood

Southside Syracuse, in Onondaga County, is like many other inner-city neighborhoods across the United States: pockmarked by crime and poverty. Bars and liquor stores dominate street corners, where drug deals can burst into the open. Residents hear gunfire while lying in bed at night. New and refurbished houses stand like beacons on city blocks. Most houses are in varying states of

disrepair — dilapidated, boarded-up or abandoned. In some pockets, foundations and empty lots are all that remain.

Residents remember the Southside in better days, with its luscious street trees and regal Gothic buildings. For the longest time, those who live here — 84 percent of whom are African-American, and earning an average per capita income of \$8,516 — have viewed the neighborhood as the "ghetto," forgotten by white, wealthy Syracuse.

"Officials never invested money into this slum," explained Elmore Davis, who, in 1998, moved to the Southside with her two daughters, lured by the promise of a house for \$500 down.

Against this backdrop of decay, the county's sewage plant does not seem terribly threatening. Situated on a bank of Onondaga Creek, near a dairy, a laundry, a canning factory and a bus terminal, the Midland Avenue Regional Treatment Facility looks like any other industrial building. At 24,000 square feet, the aboveground structure rivals the public-housing apartments dotting the area's residential streets. It sits 250 feet away from the closest home, surrounded by open space where the county has planted trees and shrubs, a testament to the community's activism.

Inside the facility, two "vortex swirl concentrators" act like giant toilets and flush sewer water down a pipe to a municipal treatment facility approximately five miles away. Underground, a 2.5-million-gallon tank stores storm water. As wastewater builds up, the "swirlers" disinfect the flow with chlorine and dump it into the creek. There are no stacks or vats spewing chemicals into the air. Many newer residents have no idea the plant was built to clean up a creek once so full of raw sewage that the stench wafted across intersections and seeped into homes.

For much of the last century, Syracuse's civic leaders have used the creek as a sewage channel. In the early 1900s, they designed a sewer system collecting sewage and storm water, and featuring up to 90 overflow points where waste could discharge into waterways during rain events. One such waterway is Onondaga Creek, which feeds a lake sharing its name. By the 1980s, untreated sewage had dirtied the creek, drying on its banks before funneling into Onondaga Lake, then among the nation's most polluted.

Targeting lake polluters, a local environmental group sued Onondaga County in 1988 under clean-water laws, alleging its "combined sewage overflows" violated safety standards. The New York State Department of Environmental Conservation joined the lawsuit, aiming to force a clean-up of Onondaga Creek.

As far back as 1979, county officials had drafted such a plan. The compliance program relied on swirlers to catch solid waste and chlorinate wastewater. It hinged on sewage plant "storage units," designed to treat flow on rain-drenched days. Officials proposed constructing four of these units, each above ground, and processing millions of gallons of wastewater a year. Even then, the county's plan included the Midland plant.

It took another two decades and a federal-court order before Onondaga County would implement its plan. In 1998, the clean-water litigation yielded a settlement requiring county officials to

eliminate creek pollution. The county was to capture 85 percent of the average annual precipitation gushing into the combined sewers to reduce overflows. The settlement also dictated specific projects to be undertaken throughout Syracuse, including the Midland plant.

The judgment identified that plant as the first to be built — and the biggest. It would consume an entire city block and rival the size of a football field. A mile-long, 12-foot-diameter storage pipe would feed the plant.

Within months, the county's proposal was circulating among Southside residents who, by then, harbored a deep sense of mistrust. Over the years, government officials had built multiple urban-renewal projects in the neighborhood, evicting residents and razing homes. Industry crept further into the area, too; today, seven minor industrial facilities operate within four blocks, all formerly residential.

That county officials would site yet another project — and especially a sewage plant, which, in the words of Southside resident Lionel Logan, "was a negative connotation" — in the same community sent a clear message to residents.

"They figured our neighborhood is black, so they'll do it," said Louise Poindexter, who has lived on the Southside for 20 years. She and other residents voiced their objections to the Midland plant at a series of public hearings in 1999. They criticized the proposal for displacing citizens and permitting the release of chlorine into the creek. By 2000, residents had formed the Partnership for Onondaga Creek and were organizing neighbors and lobbying politicians.

They demanded alternative locations for the plant but, as the Partnership's Stevens put it, "That seemed like trying to stop a freight train." They next pressed for technologies they believed would reduce the facility's presence in their neighborhood. For them, the most appealing was underground storage, which holds sewage overflow in tanks during storms. It did not require chlorine or an aboveground facility. The county could build a park or a playground on top of the tanks, they argued.

City politicians soon took notice. "I thought, 'Of course, there are other alternatives," recalled Joanne Mahoney, the Onondaga County executive, who then served on the Syracuse city council. She remembers meeting with county officials to discuss the options espoused by the Partnership, to no avail.

"If it wasn't about cost," Mahoney said, summing up the county position at the time, "it was along the lines of 'It'll improve the neighborhood if we put a plant there."

County administrators often presented the Midland plant as a kind of fait accompli: The plant, they noted at hearings and in documents, solved a serious environmental problem contributing to neighborhood nuisances. They reminded critics about the court order, and insisted the Midland location made the most technical sense. Officials acknowledged that the plant had negatives but minimized them. Some said that landscaping the grounds was sufficient recompense. "I thought it was kind of patronizing," said Mahoney, of the county's responses. She, along with the rest of her city-council colleagues, voted not to sell the county the land it needed for the Midland plant.

Seeing her vote as one cast for environmental justice, she explained: "If combined sewage overflows were . . . running through one of the affluent, white [areas], we wouldn't say, 'What's the cheapest thing to do?' And we'd never suggest that just putting up a park would make the neighborhood whole again."

By 2001, Onondaga County had sued the city of Syracuse to acquire that land, prompting a legal mediation between the two administrations and designated "stakeholders," brokered by the state. Partnership members lobbied state regulators for a seat at the negotiating table as well; when ignored, they showed up at the weekly sessions anyway. Over nine months, they met with government engineers and administrators and kept up their campaign for other options. In the summer of 2002, county officials seemed ready to relent. Regulators even drafted a proposed agreement declaring that "the best solution . . . incorporates the use of underground storage" — until the county balked.

"The county said, 'We're going to court," said Joe Heath, general counsel for the six-tribe Onondaga Nation, which opposed the Midland plant and participated in the mediation, referring to a 2003 ruling seizing city land for the facility.

Onondaga County did make some concessions — subtracting one of three swirlers, for instance, and adding the underground tank. Administrators also agreed to buy an extra acre of land to construct only one building. The changes reduced the facility's footprint by 7,000 square feet, and shifted it away from homes by 160 feet. In documents, county officials presented such plant compromises as "considerabl[e]," and "an effort to accommodate [community] concerns." For residents, though, the scaled-down version was not enough.

"We said, 'Put in underground storage,' but the county couldn't do that, okay?" said Logan, who, like many Partnership members, left the negotiations feeling dissatisfied.

"My neighborhood still has the sewage plant," he added. "Sure, it's smaller . . . but it still exists."

'Total disregard'

The Partnership shifted its focus to the EPA's civil-rights office in 2004, when the group filed its Title VI complaint. While targeting Onondaga County, the complaint also named the state's Department of Environmental Conservation, which, under the 1998 judgment, had to approve the county's compliance program. It alleged that the county had violated civil-rights law in 2003 when issuing its final plan for the Midland plant — failing to allow for "adequate, meaningful public participation"; and adopting a design and location with "adverse impacts on a predominantly minority community."

It was not the first time the civil-rights office had heard about the Midland plant. In 2000, the facility was cited as evidence of an alleged pattern of racial discrimination in a wide-ranging Title VI complaint targeting county and city administrations. Unlike Onondaga County, the city of Syracuse opposed the plant. Yet it "failed to mount an aggressive defense of its Protected Population neighborhood," the complaint argued, as required by Title VI.

"The Midland plant was a clear example of the total disregard for people who live in those [Southside] neighborhoods," said Mike Kisselstein, who, as manager of a local bank, penned the earlier complaint. "Technically, it's discrimination."

Rather than examine Kisselstein's claim, the EPA denied it on procedural grounds because, the 2001 rejection letter stated, "it was not filed within 180 days of the alleged discriminatory act."

Four years later, Southside residents were not about to let the EPA dismiss their case so easily. The Partnership offered a show of political support for its complaint, amassing a folder full of letters from federal legislators, university trustees, tribal members, local politicians, environmental advocates — "anybody who we thought had any clout," Lane said. Within five months, the EPA accepted the complaint for investigation — in part. Investigators tossed out the first allegation as "untimely," but not the second.

"The main gist of it, the [civil-rights office] was going to investigate," said Lane, who, given the previous rejection, considered the partial acceptance a victory. Generally, the EPA can mediate some resolution of a Title VI complaint with the target of the allegations. The Partnership wanted nothing less. In the ensuing months Lowry, the group's lawyer, wrote multiple letters to federal, state and county officials suggesting as much.

"We wanted EPA to say, 'Yes, there's environmental injustice here," explained Lane, the complaint's main contact, "and the way you can fix it is to go back to the negotiation table."

Onondaga County disputed the allegation, calling the complaint "jurisdictionally and procedurally defective," and arguing the plant would have little, if any, adverse impact. Responding to the citizens' complaint, county attorneys contended that the EPA had already addressed the core issues. They pointed to an environmental assessment of the Midland plant conducted by the agency's regional office, in New York City, which funded the \$125 million project.

As required by law, EPA regional officials five years earlier had reviewed the Midland plant for potential environmental impacts. In the 1999 assessment, the agency ceded that the facility could cause what it termed "high adverse impact," albeit "temporary and/or . . . offset by the county's measures to mitigate." It agreed with the county that the plant tackled a larger environmental problem, and that the plant location — home to several sewer overflows and trunk lines — meets "requirements for engineering feasibility and cost-effectiveness." And while the assessment included an environmental-justice analysis, examining a few nearby alternative sites, the agency said any facility would affect a similar population.

Ultimately, the EPA approved the Midland plant, issuing a "finding of no significant impact." The agency affirmed this conclusion in 2004, stating that "no significant adverse environmental impacts will result from the construction and operation of this project." That EPA finding, the county asserted in the civil-rights case, "precludes a finding of a Title VI violation."

For Southside residents, the irony seemed rich. Soon after the EPA released its environmental

assessment, the county built 1,000 feet of a plant pipeline, ripping up properties, and disrupting people's lives. Now as the agency launched its civil-rights investigation, the county kicked off plant construction, seizing 45 townhouses, and evicting residents like Vernell Bentley, who lived in a public-housing unit across the street.

"They told me I had to go but I said, 'I'm not going,'" recalled Bentley, one of the few to hold out for replacement housing. She remembers when trucks pulled into her dead-end street, leveling picnic tables and a basketball court. "They were boarding up my windows," she said, "and putting up fences around my home."

Once a close-knit community, the Southside has not necessarily recovered. After the evictions, Bentley and former neighbors scattered across the city. Many have disappeared since. "It just messed up the neighborhood," said Bentley, who likens her experience to that of black citizens pushed out by urban-renewal projects in the 1960s and '70s.

""We don't care about these Negroes, just put it here," she added.

By March 2005, the EPA's civil-rights office had dismissed the Partnership's complaint. Relying on the regional office's 1999 environmental assessment, as well as the county's paper trail for developing its sewer compliance plan, investigators determined that the Midland plant would not have a "significant adverse impact." "Therefore," the 2005 dismissal letter stated, "[the office] does not find a prima facie case of discriminatory effect."

Some saw a larger pattern in the EPA's dismissal. For years, its civil-rights office has interpreted compliance with environmental laws as evidence that a target's actions or decisions would not harm a minority community. Experts note that, unlike Title VI, environmental laws are not designed to protect historically vulnerable populations; on the contrary, they are written for everybody. These laws also examine individual impacts — on the air, or in the water — rather than the cumulative effect, as required by Title VI.

"Compliance with environmental laws was conflated with compliance with Title VI," said Lowry, who, like many, has viewed such an interpretation as a misreading of civil-rights law. In the Syracuse case, investigators did not evaluate what she described as legitimate resident claims about the county's final plan — its disruption to the community, for instance, and its dislocation of residents — because of their reliance on an environmental review not intended to account for such consequences in the same way as Title VI.

"With Title VI and the EPA," she added, "there is something of a disconnect."

Stunned by what they considered an unfair investigation, the Partnership pushed for a meeting with EPA officials in the summer of 2005, during which they challenged the agency's dismissal. When they heard the EPA's concession, members set out to find what they considered "new and significant information." Over nine months, they filed records requests and combed through documents detailing Onondaga County's sewer compliance plan. By 2006, they had produced a 150-page addendum, backed by 500 pages of government records, outlining how plan architects had repeatedly made decisions that would burden the Southside over other neighborhoods.

They believed they had uncovered "the smoking gun" in a three-page document written by consulting engineers for county administrators. The 1998 document revealed that Onondaga County had planned to build a "swirl concentrator" just like the Midland plant on the Northside before evaluating alternatives that, the engineering report stated, "will reduce costs and disruption of the site."

The county could capture the Northside's sewer overflows by building an "oversize pipeline in both Midland and [nearby downtown]," according to the report, thus sparing the former "disruption." The county later scratched this area's sewage plant for a smaller, less intrusive "floatable control facility."

"It was like, 'Okay, that's discrimination,'" said Lane, noting the Northside facility sat near luxury condominiums in a predominantly white area. A retired engineer, she saw the document as an expose of the ways the county was, in her words, "shifting the burden from the Northside, sparing them and placing it onto the Southside, where you can get away with it."

Given all this work — and all this new information — Partnership members never expected that the EPA would fail to acknowledge their addendum, they say. Now, 10 years after their case's dismissal, they have learned all about the agency's lackluster record of adjudicating civil-rights claims. Still, their case has seemed as good as any could get. To them, the agency's silence has left one lasting impression of its enforcement of civil-rights law:

"We do all the digging. We send them stuff. They don't talk to us anymore," said Lane, summing up the community's Title VI experience. "It makes you cynical after a while. . . . You think, 'What does any of this really mean?"

Asked about Syracuse, Golightly-Howell, the EPA's civil-rights chief, declined to speak about cases that have not "happened on my watch," beginning in February 2014. In general, she pointed out, "the agency bears the burden of investigating and determining whether a prima facie case [of discrimination] has been established."

Under her leadership, Golightly-Howell said, the civil-rights office has worked to implement a strategic plan for improving how investigators handle Title VI complaints. As part of this effort, it issued a position paper in May explaining the role of complainants during case investigations.

"We've made forward movement in the direction of increasing confidence," she said.

After the EPA's dismissal, Southside residents kept up their fight, protesting at every phase the Midland plant's construction. They eventually benefitted from a shift in Onondaga County's political landscape in late 2007, when executive Mahoney won her first election. Almost as soon as she had assumed office, Mahoney set out to revise the county's sewer compliance plan. By then, the Midland plant had already been built, but not its feeder line. She cancelled that pipeline, as well as another proposed sewage plant.

"It was clearly the right thing to do," said Mahoney, who has since implemented a plan largely

relying on alternative technologies espoused by the Partnership, such as underground storage.

Today, the Midland plant is the rare sewage plant storage unit to actually be built in Syracuse. Mahoney's sewer compliance plan has enabled her administration to reduce the footprint of every single proposed swirler facility except Midland. Some of those facilities became underground storage tanks, and are now nestled beneath parking lots. Others were never built.

That none of the city's other neighborhoods have had to endure what they have endured remains a bitter pill to swallow for many on the Southside. "We got the plant," the Partnership's Poindexter said. "Nobody else did." As residents see it, Southside may be in better shape today than it would be if it no one had spoken up years ago — their sewage plant is smaller, their creek cleaner. But none of these gains came about because the EPA's civil-rights office did right by the community.

"What did the agency do for us? They didn't do shit for us," Poindexter said, echoing the sentiment among many neighbors. "They gave us hope when they knew there was none. That's how I feel about the whole thing."

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## 13. What the Gold Mine Disaster Tells Us Editorial New York Times -- 8/13/2015 New York, NY

What the Gold Mine Disaster Tells Us Editorial AUG. 13

The General Mining Law of 1872 is among the last surviving statutes of the boisterous era of westward expansion. Signed by Ulysses S. Grant, it establishes the basic rules for mining hardrock minerals like gold, copper and uranium on public lands.

Useful in its day, the law is a destructive relic now. It allows mining companies to buy federal land for a few dollars an acre, demands no royalties and requires minimal environmental protections while the mine is operating and no cleanup afterward.

Its principal legacy, if it can be called that, is a battered landscape of abandoned mines and poisoned streams.

The durability of this law, which has resisted all efforts at reform, is worth noting in the wake of a terrible mining-related disaster. On Aug. 5, a team contracted by the Environmental Protection Agency to investigate leaks from an abandoned gold mine in Colorado accidentally unleashed a torrent of chemically laced water. The spill of more than three million gallons has poisoned over 100 miles of the Animas River with toxic wastes, turning the river a bright yellow-orange and threatening communities in Colorado, New Mexico, Utah and the Navajo Nation that draw water from the river and its tributaries.

But beyond this local disaster lies a national problem: According to Earthworks, a Washington-based advocacy group, there are 500,000 of these abandoned and unreclaimed mines scattered about the country. According to the E.P.A., the drainage from these mines has contaminated roughly 40 percent of the headwater areas of Western watersheds.

In other words, there are many similar disasters waiting to happen. One big reason is the permissive 1872 law: There has never been a firm legal requirement, let alone enough money, to clean these old mines up. One obvious remedy is comprehensive reform of that law.

In 2007, at the urging of then-Representative Nick Rahall of West Virginia, the House passed a modest bill requiring mining companies to pay royalties, just the way oil, gas and coal producers do. The money would have been used to clean up old mines, while tough safeguards would be imposed on new ones. But a similar bill went nowhere in the Senate, where Harry Reid, then the majority leader, has been less than enthusiastic about reform because mining is big business in Nevada, his home state.

Now Representative Raúl Grijalva, an Arizona Democrat, is trying again. His bill would levy royalties on both new and existing mines as well as a modest reclamation fee. Together these funds could at least begin the arduous, expensive but absolutely necessary task of addressing a major environmental problem.

Perhaps this time, with the Animas disaster fresh in its mind, Congress will pay attention.

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## 14. EPA SCIENTIFIC INTEGRITY POLICY STUCK IN UTERO Public Employees for Environmental Responsibility -- 8/12/2015 Washington, DC

EPA SCIENTIFIC INTEGRITY POLICY STUCK IN UTERO Several Key Components Still Missing with No Scheduled Completion Aug 12

Washington, DC — Despite pledging a "culture of scientific integrity," the U.S. Environmental Protection Agency's official Scientific Integrity Policy remains largely unfinished more than three years after its launch. This protracted foot-dragging denotes managerial resistance and lack of high-level engagement, according to Public Employees for Environmental Responsibility (PEER) which today wrote to EPA Administrator Gina McCarthy to ask her intervention in clearing away critical bureaucratic roadblocks.

Under a 2009 directive from President Obama, each agency with science responsibilities was ordered to adopt rules prohibiting political manipulation or suppression of science and protecting scientists from reprisal for findings deemed off-message. EPA got around to adopting a Scientific Integrity Policy in February 2012 and hired its first full-time Scientific Integrity Officer in 2013.

Today however, there still "are no formal processes for receiving or resolving allegations" of policy violations, according to the program's latest annual report issued last month. Yet without any procedures, EPA has resolved more than a score of complaints – largely by dismissing them. To date, the agency has yet to substantiate a single instance of "loss of integrity."

While EPA promises to adopt complaint procedures later this year, it has no implementation timetable for:

Any protections for EPA employees "who express a differing scientific opinion, from retaliation or other punitive actions," as required by the policy;

Clearance procedures so EPA scientists know when they are allowed to publish scientific works. The EPA report says it "will work on creating an Agency framework for clearance procedures" but meanwhile some EPA offices have their own clearance rules while others have none; and

Any media protocol spelling out when scientists may respond to press inquiries or interview requests or publicly discuss their findings, despite numerous complaints from journalists. Instead of clarifying media access, the Office of Public Affairs has added five new staff.

"These missing elements are not mere details – they are the guts of the policy without which it is just an empty promise," stated PEER Executive Director Jeff Ruch, noting that time may be running out. "At this rate, EPA will have nothing resembling a complete scientific integrity policy before Obama leaves office and these concerns may not be shared by the next administration."

In addition, the program appears hobbled by practical and resource limitations. For example, the Scientific Integrity Policy applies to EPA contractors and grantees – a group that likely outnumbers EPA employees – but the agency has yet to write these requirements into grant or contract agreements. As for EPA employees, only a third have received detailed briefings about the policy.

These problems are compounded by the policy itself which is both vague and contradictory:

Promising a "robust culture of dissent" while stressing the need for consistent public messaging;

Repeatedly invoking the importance of "timeliness" but containing no deadlines; and Proclaiming the importance of scientific integrity but stipulating no penalties for violation.

"At the moment, EPA's Scientific Integrity Policy is of no practical help to scientists facing political pressure or reprisal," added Ruch, pointing to current litigation involving EPA scientists persecuted due to their scientific dissent by agency managers. "EPA famously claims to operate 'within a fishbowl' but it is one in which the curtains are still tightly drawn."

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15. Vogtle: at \$65 billion and counting, it's a case study of nuclear power's staggeringly awful economics

GreenWorld -- 8/2/2015 Takoma Park, MD

Vogtle: at \$65 billion and counting, it's a case study of nuclear power's staggeringly awful economics

Michael Mariotte August 2

Georgia is one state that you would think would be wary of nuclear power economics. The first two reactors at Georgia Power's Vogtle site, which came online in the late 1980s, were a record 800% over budget.

That is a number that is almost impossible to grasp. Nothing goes 800% over budget—in the real world, projects get cancelled well before reaching that point.

I'm thinking of making about \$100,000 worth of improvements to my aging house desperately in need of them. 800% over budget would take that to \$800,000. But I could buy a very nice house for that instead, even in the Washington DC area. Of course, I can't afford an \$800,000 house and can't afford a project that is 800% over budget, either. Most people can't. Neither can businesses. So if those improvements start to creep up from the budget—in my case if they go more than about 10% over budget—the whole project gets the kibosh.

Sane people do not let projects get 800% over budget. Unless, perhaps, if someone else is putting up the money. And that's exactly what happened with the first two Vogtle reactors—the overruns were pushed on to ratepayers; Georgia Power had to eat some small portion of them, but basically ratepayers were forced to pick up the tab.

And in a case of history repeating itself as predicted—as farce—that's exactly what is happening with the two Vogtle reactors under construction now.

When the project was announced, and when the utilities building the project first applied for taxpayer loans to help finance the project, Southern Company (Georgia Power's parent) said the two reactors would cost about \$14 billion and would be online in 2016 and 2017.

That was back around 2008. Vogtle got its taxpayer loan promise in February 2010 and its construction permit in February 2012. Three and a half years later, Vogtle is more than three years behind schedule—39 months behind, in fact.

And the cost of building Vogtle has, not surprisingly, gone up. Way up. Right now, it's somewhere around \$16 billion and rising fast—the over-budget portion caused by the delays alone is \$2 million per day. And as you can see from the photo at the top of the page, taken last Thursday, construction still has quite a long way to go.

Georgia Power already has run through half of its federal loan money, paid for by all U.S. taxpayers, not just Georgia ratepayers. Some of the rest of the taxpayer loan (the loans totaled more than \$8 billion) was received later by the other partners, so perhaps they haven't run through their share yet.

In any case, the supposed point of getting the loan, and of charging ratepayers for construction costs as they are incurred (a concept called Construction Work in Progress, barred in most states), and of building the reactors in the first place, was to save ratepayers money. That's what Southern Company says anyway.

And they run off numbers and argue that building Vogtle, even with the overruns and delays, will save ratepayers \$3 billion compared to building a gas-powered plant, which probably would already be operational, by the way, except that neither it nor Vogtle actually are needed.

But those numbers, despite the utility's protestations, no longer add up.

In fact, <u>according to former Georgia Public Service Commissioner Bobby Baker</u>, the total current benefit to ratepayers—calculated from utility-supplied figures—is \$208 million.

But that's assuming the reactors are online in time, by December 31, 2020, to receive federal production tax credits of \$522 million each. Vogtle-4 probably isn't going to make it. And Vogtle-3 is rather iffy. Any more delays will probably force the utility to concentrate on Vogtle-3, which will make Vogtle-4 even later and cost even more.

If you take that \$208 million and subtract \$522 million for Vogtle-4 not meeting the deadline, you get negative benefits. If neither reactor makes the deadline, the negative benefits start to get very large. And with costs rising at the rate of \$2 million/day, the negative benefits get larger still.

If one—or both—of the reactors gets cancelled before operation, then the negative benefits grow even more. Unless the cancellation occurs before too much more money is spent—then cancellation would turn into a net benefit for the ratepayers by avoiding the costs that have not yet been incurred. Sure, Georgia Power might take a hit and a lot of money that already has been spent would be wasted. But at least ratepayers could breathe easier.

Vogtle-3 and -4 are not at the 800% overrun level, yet. Georgia ratepayers have to hope they won't get close to that. But history isn't reassuring, and the modular construction concept adopted by Southern Company that was supposed to keep costs down and prevent overruns hasn't exactly panned out, as the Wall Street Journal reported last week.

Other utilities were looking at the Vogtle project—the first that had been approved for a construction license in 30+ years—as the harbinger. If the giant Southern Company couldn't build Vogtle close to budget and close to schedule, then probably no utility could. With the weight of the nuclear "renaissance" on its shoulders, Vogtle already has failed that test. There is nothing at all in this project—which had every possible benefit from CWIP to federal loans—that would make another utility want to try to build a reactor.

The economics of nuclear construction are just too staggeringly awful. But it gets worse.

Because, as former PSC Commissioner Baker said, the total lifetime cost of Vogtle, including construction, is now estimated at \$65 billion—a number too high for "staggering" to apply

anymore.

Two commenters to the article came up with two radically different estimates of what that means for the kilowatt/hour price for Vogtle's electricity. One says 6.1 cents, the other 15 cents. The real cost will depend on how well Vogtle runs once it's built; if, in fact, both units actually are completed. Assuming they are—at this point not a safe assumption—the real number probably would fall between those two guesses.

Except that the \$65 billion number doesn't include decommissioning and radioactive waste disposal costs, both of which will be added to ratepayers' bills—and probably the rest of us taxpayers as well when the amount collected proves to be too small, as is the case with every other reactor in the country.

Meanwhile, utilities across the country, including Georgia Power, are buying solar power for 5 cents kilowatt/hour and less. And, unlike Vogtle, where the costs keep rising, solar's price keeps falling.

Georgia ratepayers can only hope the Georgia PSC wakes up in time to prevent any more cost overruns from being passed on to them. The rest of us can only hope Georgia Power and the other smaller utilities can actually repay their taxpayer loan. Actually, we could also hope that everyone involved will come to their senses and end the project now, before it gets any worse.

After all, if the definition of insanity is doing the same thing and expecting a different result then everyone involved in Vogtle-3 and -4 is on the verge of committal.

Correction, as in Doh! Okay, so my math can get a little challenged on deadline....The example of an 800% increase in the cost of renovations to my house is, of course—as several people gracefully pointed out—wrong. An 800% increase to a \$100,000 project would have a final cost of \$900,000, not \$800,000 as I wrote above. I could get an even nicer house for that...and hopefully, if we do decide to do those renovations, our math while we monitor their costs will be a little more accurate.

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# 16. Rising seawater temperatures force Pilgrim to reduce power Cape Cod Times -- 8/11/2015 Hyannis, MA

Rising seawater temperatures force Pilgrim to reduce power
Rising temperatures in bay force reduction in power
It was only the second summer in the nuclear plant's 43-year history that the temperature of the water used to cool the reactor exceeded the federal limit.
Christine Legere Aug. 11

PLYMOUTH — The owner of Pilgrim Nuclear Power Station had been planning to ask for a license adjustment that would allow the plant to draw warmer water from Cape Cod Bay than is currently allowed.

But the request was not made soon enough.

Pilgrim operators were forced to begin preparation for a shutdown late Sunday afternoon, when the temperature of the seawater used to cool the reactor edged above the 75-degree limit set by the Nuclear Regulatory Commission.

After reaching a high of 75.09 degrees, water temperature dropped below the limit about a half-hour later, and Pilgrim was up to full power by 8 p.m.

It was only the second summer in the plant's 43-year history that water temperatures exceeded the federal limit. In July 2013, Pilgrim had to lower its power level three times because of water temperatures during a heat wave.

The plant, however, has never been forced to fully shut down.

Millstone Nuclear Power Plant in Connecticut, which draws water from Long Island Sound, was the first in the Northeast to shut down because of rising water temperatures, which have become an issue in this region within the past five years. The plant has since secured a maximum intake temperature of 80 degrees on its operating license.

"Pilgrim is still looking to increase the maximum saltwater temperature to a higher value, but the supporting analysis is not yet complete," Lauren Burm, spokeswoman for Entergy Corp., the plant's owner-operator, said.

Last week's hot spell likely contributed to the rise in the bay's water temperature, but a spokesman for the Nuclear Regulatory Commission said the plant's discharge of hot water into the bay also may have been a contributing factor.

"The ballpark estimate on water discharge temperatures at Pilgrim (Sunday) would be about 95 degrees Fahrenheit," Neil Sheehan said in an email.

Under its license, water discharged from the plant may be no hotter than 102 degrees, a level set by the Environmental Protection Agency as part of a water discharge permit.

David Webster, water permit branch chief for the EPA, called the 102-degree limit "not atypical" but conceded "it's on the mid- to high end."

The EPA has not renewed the water discharge permit for Pilgrim since it expired in 1996. Webster said the permit has been "administratively continued" until a new one is issued. A draft is expected to be ready for public comment by December.

Pilgrim draws up to 500 million gallons of saltwater daily from Cape Cod Bay through an inlet

created by two breakwaters. The water is circulated through the plant's condenser via a network of thousands of tubes, cooling down the steam from the reactor and returning it to its water form, Sheehan said.

"The higher water temperature affects the efficiency of the heat removal," Sheehan said.

David Lochbaum, director of the Nuclear Safety Project for the Union of Concerned Scientists, called the elevated bay temperatures "more of an economic hit than a safety issue" for Pilgrim.

"When the temperature goes up, the equipment needs more cleaning," Lochbaum said.

The intake limit of 75 degrees was set four decades ago based on history. "We're seeing temperatures rise," Lochbaum said. "Either they didn't look back far enough when they set the limits or global warming is taking us beyond these bands."

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### 17. What The Sugar Industry Doesn't Want You to Know Food Manufacturing -- 8/12/2015 Madison, WI

What The Sugar Industry Doesn't Want You to Know 08/12/2015 CNN Money

How much sugar should you eat? The FDA wants to tell you, but the sugar industry has spent \$168 million fighting measures like this since 2009.

https://www.youtube.com/watch?v=SERAVe01S Q&feature=youtu.be

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## 18. Did The EPA Intentionally Poison Animas River To Secure SuperFund Money? Zero Hedge -- 8/12/2015 New York, NY Internet

Did The EPA Intentionally Poison Animas River To Secure SuperFund Money? Tyler Durden 08/12/2015

A week before The EPA disastrously leaked millions of gallons of toxic waste into The Animas River in Colorado, this letter to the editor was published in The Silverton Standard & The Miner local newspaper, authored by a retired geologist detailing verbatim, how EPA would foul the Animas River on purpose in order to secure superfund money...

"But make no mistake, within seven days, all of the 500gpm flow will return to Cememnt Creek. Contamination may actually increase... The "grand experiment" in my opinion will fail.

And guess what [EPA's] Mr. Hestmark will say then?

Gee, "Plan A" didn't work so I guess we will have to build a treat¬ment plant at a cost to taxpayers of \$100 million to \$500 million (who knows).

Reading between the lines, I believe that has been the EPA's plan all along"

Sound like something a government entity would do? Just ask Lois Lerner...

As we concluded previously,

The EPA actually has no concern for the environment, they just happen to use the environment as a cover story to create laws and gain an advantage for the companies that lobbied for exemptions to the agency's regulations, and to collect money in fines. There are solutions outside the common government paradigm, and that is mainly the ability for individuals, not governments, to hold polluters personally and financially accountable.

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### 19. Saturated fats in meat and dairy not as bad for health as previously thought, study finds

Independent, The -- 8/12/2015 London, UK

Saturated fats in meat and dairy not as bad for health as previously thought, study finds

The saturated fats found in meat and dairy produce are not as bad for health as previously believed, a study has found. However, the scientists who conducted the research have warned against reaching for the butter dish.

A major study into the health implications of dietary fats has failed to find a link between food containing saturated fats, such as eggs, chocolate and cream, and an increased risk of dying from heart disease, stroke or type-2 diabetes.

The study nevertheless did find that industrially-produced "trans-fats" made from hydrogenated oils, and once used in margarine, snack foods and packaged baked foods such as some cakes and crisps, are linked with a greater risk of death from coronary heart disease.

The latest findings, published in the British Medical Journal, appear to confirm the growing realisation that the prevailing health advice for the past half century to cut down on foods that are rich in saturated fats such as butter and cheese may have been misguided.

The study, carried out in Canada by Russell de Souza of McMaster University in Hamilton, Ontario, and colleagues found no association between saturated fats and ill health, but did find a link with the consumption of foods containing trans-fats, such as margarine.

The scientists found that the consumption of industrial trans-fats was associated with a 34 per cent increase in all causes of mortality, a 28 per cent increase in death from coronary heart disease and a 21 per cent increase in the risk of being diagnosed with heart disease.

Despite the failure to establish a link between the risk of ill health and premature death from eating foods containing saturated fats, Dr de Souza warned against taking these findings as a green light to eat more dairy foods, meat, eggs and milk chocolate – all rich in saturated fats.

"For years everyone has been advised to cut out fats. Trans-fats have no health benefits and pose a significant risk for heart disease, but the case for saturated fat is less clear," Dr de Souza said.

"That said, we aren't advocating an increase of the allowance for saturated fats in dietary guidelines, as we don't see evidence that higher limits would be specifically beneficial to health," he said.

Current dietary guidelines recommend that saturated fats are limited to less than 10 per cent of daily energy intake, and trans-fats to less than 1 per cent to reduce the risk of heart disease and stroke.

The latest findings confirm the conclusions of five previous systematic reviews of the supposed links between coronary heart disease and saturated fats and trans-fats, but Dr de Souza warned that changing the dietary guidelines is still not warranted.

"If we tell people to eat less saturated or trans-fats, we need to offer a better choice. Unfortunately, in our review we were not able to find as much evidence as we would have liked for a best-replacement choice," Dr de Souza said.

"We could not confidently rule out an increased risk of death from heart disease with higher amounts of saturated fat, and we should not ignore stronger and consistent evidence from better designed studies that eating less saturated fat and more polyunsaturated fat from vegetable oils reduces 'bad' cholesterol levels and that diets that replace saturated fat with these fats, as well as whole grains, reduces the chance of developing or dying from heart disease," he told The Independent.

Professor Tom Sanders, a retired nutritionist at King's College London, said that the latest study should come with its own health warning as it largely relied on peoples' memory of what they ate some time ago, which is notoriously unreliable.

"Memory-based dietary recall is subject to substantial bias particularly for food items seen to be good or bad with under-reporting becoming more prevalent among those who are obese," Professor Sanders said.

Trans-fats were largely removed from the UK food chain ten years ago, while the intake of saturated fats has fallen by about 40 per cent since the 1970s, while polyunsaturated fats found in vegetable oil and fatty fish have increased by 50 per cent, he said.

"It would be foolish to interpret these findings to suggest that it is OK to eat lots of fatty meat, lashings of cream and oodles of butter," Professor Sanders added.

"The idea that we should revert to the Mary Berry diet of lashings of cream and butter is probably not a good idea," he said.

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# 20. Illinois parents refusing vaccines for kids need doctor's signature FOX News Network -- 8/13/2015 New York, NY

Illinois parents refusing vaccines for kids need doctor's signature August 13, 2015 Associated Press

Parents in Illinois citing religious objections in refusing to have their children immunized will have to get a doctor's signature confirming they've been informed of the risks.

A bill signed into law this month requires parents of children entering kindergarten and grades six and nine to provide a Certificates of Religious Exemption with a health care provider's signature if they opt out of vaccine requirements.

Supporters hope it will reduce the number of religious exemptions, which have more than doubled since 2009, reaching more than 13,000 for the 2013-2014 school year.

Lawmakers backing the bill were also worried by a recent measles outbreak in suburban Chicago linked to a child-care center.

Illinois Department of Public Health Director Nirav Shah said in a statement Wednesday that vaccines protect entire communities.

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